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Selection and Appointment of Basic School Headteachers in Ghana: Looking Back to Move Forward

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Abstract

The study employed the exploratory sequential mixed method design involving semi-structured interviews with 12 former and 18 current head teachers, and 4 directors of Education. Structured questionnaires were further administered to 390 former and current head teachers and 4 Directors of Education. The findings of the study revealed that in the past basic school head teachers were mostly selected and appointed based on long service and experiences, while few became head teachers because of their religious affiliation. Currently, the study established that although long service and religious affiliation still remain a factor, however, academic qualification, leadership skills, and research publications are considered as an advantage. The study recommends that at least a basic school head teacher should possess a qualification in educational administration and leadership and a well-designed pre and in-service training should also be regularly organised for them based on their needs.

Keywords: Basic School, Head Teacher, Selection, Appointment

1. Introduction

Undoubtedly, the educational history of Ghana as a country has evolved from a number of reforms since 1987 to present day. Over the years, the basic, secondary and tertiary levels of education in Ghana has seen major educational reforms from the Free Compulsory Universal Basic Education (FCUBE) to Free Senior High School Education (FSHSE). The main issues addressed in these reforms have been a reduction in number of years spent in formal education from 17 years to 12 years of schooling, increase access to basic education, improving the quality of teaching and learning and most significant is the free tuition to all Ghanaian child from the basic to the secondary level of education. Specifically, the FCUBE and FSHSE programmes were meant to ensure that all school going-age children receive free and compulsory quality basic education in Ghana. These policies helped to create motivation for a coordinated sector programme providing donor support to education and a drive for educational decentralisation with greater recognition of the important role of community and other stakeholders participation in school management for school improvement. Two of the major components of these programmes are:

- Improving efficiency in management and
- Improving access and participation in education at the basic and tertiary levels

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The FCUBE created the momentum for introducing the School Management Committee (SMC) and the Parent Teacher Association (PTA) with the intention to enhance stakeholders' and communities' sense of ownership and participation in all school decision-making. To deliver the objectives of the FCUBE, basic school head teachers needed skills in school administration and leadership to effectively manage basic schools in Ghana (Dampson, 2015).

In accordance with section 12 and 13 of the Ghana Education Service (GES) Act 1995, section 504, the mandate is given to the Educational Council to advise the President of Ghana on the appointment of the Director-General of Education. The Director-General of Education, in turn, advises the appointment committee on the appointment of Regional and District Directors of Education. Through this Act, the District Directors of Education are mandated to select and appoint qualified basic school head teachers.

Notwithstanding these Act, in Ghana, research (Afful-Broni, 2005; Afful-Broni & Dampson, 2008; Bush & Oduro, 2006) argue that in the past majority of the basic head teachers were selected and appointed based on long service, and most of them had no formal training in the field of Educational Administration and Management. Interestingly, a study conducted in Kenya and Uganda by (Oplatka, 2004; Hoy & Tarter, 2010) revealed similar results. In Ghana, Afful-Broni & Dampson, (2008) further posit that the 1987 Educational reforms brought to bare an important modifications where only basic school head teachers with the qualification of a Principal Superintendents or, at least Senior Superintendents who had passed through interviews and a week in-service training in school leadership were selected as heads to run schools as a blander. Although Dampson (2015) posits that is a good beginning, on the whole, the major problem is that these head teachers lacked skills and knowledge in educational leadership and school management.

Nonetheless, it is generally accepted by the Ghana Education Service, Ghana National Association of Teachers (GNAT) and among head teachers themselves that in spite of the successes which some of them have attained, they would admit that they initially had to experiment with several ideas, or leadership ideology and principles, some of which may have negatively affected the quality of their decision-making and the eventual misplacement of students and teachers in the country. They would most likely admit that they would have benefited immensely from more formal training in school leadership and management.

A study conducted by Bush & Oduro (2006); Afful-Broni & Dampson (2008) and Dampson (2015) revealed that a survey at the basic schools in Ghana indicate that majority of the basic school headteachers were appointed based on long service and seniority. If the headteacher of a basic school went on transfer or retirement and another headteacher was not immediately available to be transferred to the post, one common criterion for replacement was the most senior teacher likely to be chosen for the position. If these circumstances hold, there is a substantial reason to assume that in most remote and deprived parts of Ghana, where few basic schools are scattered among communities, the teacher who gets to be the head teacher is mostly the only trained teacher at a post. It is further argued that in such isolated cases these selected headteachers may or may not go through any in-service training to equip them with the skills needed to manage basic schools. In such situations propensity of initial mistakes due to trial and error, ignorance, immaturity, and inexperience on the part of these headteachers cannot be overruled.

Indeed, while scholars stress the importance of involving staff members and teachers in a shared decision-making process for school improvement (e.g., Hoy & Tarter, 2010; Harris, 2012; Somech, 2010), head teachers ultimately control decision-making by initiating the process and ensuring the implementation of the resulting conclusion(s) (Lunenburg & Ornstien, 2000). Who should be involved in the decision-making process, how an administrator or committee arrives at a solution, and when or how that solution is put into place are, according to O'Sullivan (2011), all under the direct control of the school's headteacher. As a consequence of the head teachers' position within the educational institution and because of the organisational authority granted to them, they make decisions on an almost continuous basis (Hallinger & Heck, 2010). Notwithstanding, the role of the basic school headteacher in Ghana as the key decision-maker, facilitator, problem-solver and an agent of change in the school and national development cannot be overemphasised.

Regardless of the benefits and importance of teacher preparation in school leadership and management, Afful-Broni & Dampson (2008) assertion made over a decades ago that, majority of the basic school head teachers were selected and appointed to lead schools without the required skills and certification is still relevant despite the implementation of various educational policies which calls for competency, skills and knowledge in school leadership. Additionally, the paucity of research, documentation and related literature regarding the selection, preparation and appointment of basic schools within the Ghanaian context which has created a gap in present understanding and process of how basic school headteachers should be selected and appointed for effective and efficient school leadership calls for the justification of this study.

The complexity of managing and moving basic schools toward change and transformation within a dynamic Ghanaian environment can be overwhelming and calls for effective leadership approaches within basic schools in Ghana. Even though the concept of teacher leadership and preparation has been considerably explored within both basic and higher education sector, there is still no strict policy and process generally accepted and religiously ad heard to with regards to the selection and appointment of basic school head teachers in Ghana. Thus, this paper specifically seeks to explore the past and current practices in the selection and appointment of basic school headteachers into a leadership position. To collect data for the study, the following research questions guided the study:

1. What has been the practice/process of selecting and appointing basic school headteachers in Ghana?
2. What is currently practised by the Ghana Education Service with regards to selecting and appointing basic school headteachers in Ghana?
3. At what level of leadership are the basic school headteachers managing their schools?
4. What is the way forward in selecting and appointing basic school head teachers in Ghana?

2. Literature Review

Allotey-Pappoe (2017) argues that for an effective and quality school system, the roles of school heads cannot be veritably unheeded because school heads are considered pillars of the school, thus their actions and in-actions greatly influence its fabric. Similarly, With the quality of teaching being one of the major requirements of school improvement and the concern that an alarming number of teachers are underperforming as evidence from the 2011-2013 Basic Education Certificate Examination (BECE) indicates poor performance of students (GES, 2011; MOE, 2013; MOE, 2014), the role of school heads becomes a necessity for academic productivity and excellence in Ghanaian basic schools (Somech, 2010; Harris, 2012; Kuku & Taylor, 2002;). The Ministry of Education (1999) in trying to understand the reasons for low achievements among pupils in schools suggested 10 key causes of which headteachers' knowledge and skills in school leadership and management were considered as key factors to school improvement.

In this instance, school leadership is considered extremely influential in the success of a school, and it is, therefore, essential to give thought, care, time and attention to recruitment and selection processes. Similarly, the roles of those to be recruited should be carefully defined, and consideration should be given to flexible working arrangements, such as teacher empowerment and participative leadership in order to be as inclusive as possible and to improve the academic performance of students. From the on-going discussions, it is an undisputed fact that school leaders control human and material resources of the school, and that their position is so important that the school cannot exist without it (Babayemi, 2006). Furthermore, Ibukun, Oyewole & Abe (2011) argue that the success of school to a larger extent emanates from the administrative, supervisory, managerial and leadership qualities of school heads. Maintaining quality and standards in education depends largely on the extent to which heads of schools effectively carry out their leadership responsibilities.

A decade and a half ago, Oduro (2003) differentiates recruitment from selection and argues that the former involves making an effort to attract the most suitable applicants from whom the most suitable person is chosen for the job, while the latter involves choosing the most suitable from among the attracted applicants for the job. This process means that selection takes place after recruitment, but Oduro goes on to say that both recruitment and selection have a common goal - 'hiring the most capable to lead the school' (p.298).

However, different criteria are used for recruiting/selecting/appointing headteachers in different countries. Middlewood (1997) indicates that in a country like Canada, principals are required to undergo appropriate training and obtain relevant qualification, and be allocated to schools or colleges for a specific period before being re-posted to different schools or colleges. In England, the National Professional Qualification for Headteachers (NPQH) course has been introduced for aspiring headteachers – the aspiring headteachers are mandated to undertake the course. Candidates for headship positions are selected by the governing bodies in a competitive situation. The criteria for recruiting/ selecting/ appointing headteachers in Canada and England differ from those used in Ghana. Middlewood (1997) notes that the authority for appointing headteachers is vested with the Directors of Education (DoE) of various districts, although they manage education with the support of the Assistant Director in charge of specific schedules and the regional manager of education units of religious organizations. The governing bodies, thus, have no role in the recruitment/selection/appointment of headteachers.

Another study conducted in Ghana by Bush and Oduro (2006) indicated two approaches used by the GES directors to appoint headteachers in Ghana. The first step is appointment through direct posting, which involves appointing newly-trained teachers to lead schools, especially in the rural areas. The unattractiveness of rural life appears to have made working in rural schools non-competitive among teachers, who might otherwise have had aspirations to be appointed as headteachers. The second strategy is appointment through selection interviews, which is largely associated with the appointment of urban school headteachers. Candidates for interviews are selected through recommendation. (Bush & Oduro, 2006).

In the past, Ghanaian basic school head teachers were required to attain the position of Senior Superintendent rank before they are considered for appointment as headteachers. During that level in their professional career, they are deemed to be experienced enough to manage schools. In 2008, a study conducted by Afful-Broni and Dampson revealed that in the majority of the rural schools the minimum requirement had been compromised to the extent that the majority of the head teacher lacked the minimum qualification of 5-year working experience as a senior superintendent.

This is no different, as the OCED report in 2003 revealed that some countries, particularly the United States and Ghana, find it difficult to attract suitable candidates for what is seen as an increasingly onerous job. In another study Grady et al., (1994) sampled all Australian government school principals and found that regardless of location, type, size or level of school, gender, or age, ninety-two percent of Australian principals expected to retire or resign from the principalship more than five years before they 'have to'. Similarly, Afful-Broni & Dampson (2008) posit that because the majority of the head teachers were appointed based on long service, most of them were close to their pension during their appointment. The implication is that, in most basic schools where teachers find the heads position to be onerous, it will be difficult to attract the qualified personnel to fill the position, hence, breaching the required laid procedure and process.

Generally, the selection, recruitment, and appointment of a basic school headteacher differ from country to country. For example in the United Kingdom, the arrangements for the appointment of a head teacher or deputy head teacher are in accordance with Section 35 and 36 of the Education Act 2002 and School Staffing (England) Regulation 2003, SI 2003, 1, 1963.

More recently, as Ghana is part of the rapidly changing world, studies have shown that among the primary prerequisites for improving the quality of teaching in basic schools are effective school leadership and strategic thinking (Dampson & Edwards 2017) and full teacher participation in the school decision-making process (Dampson, 2015). In this regard, one of the programmes that have made a positive contribution to the training of basic school head teachers in Ghana is the Leadership for Learning Programme (LfL). The LfL, the Cambridge Network was established in 2001 as a value-based network concerned with learning, leadership and their interrelationship (Jull, Swaffield & MacBeath, 2014). In Ghana, the LfL partnership with the Institute for Educational Planning and Administration (IEPA) at the University of Cape Coast has been able to train and organised relevant workshops for an estimated 3000 head teachers throughout the country. Additionally, the LfL's five policies: focus on learning; conditions for learning; shared leadership, dialogue; and shared

accountability has been adopted by the Ghana Education Service (GES) and included in the head teachers handbook. Such positive impact in policy implementation and training of head teachers in leadership and learning is regarded as an add-up to the selection and appointment of basic school teachers to headship positions.

In 2010, the LfL reported that through their initiative in improving leadership in basic schools, the Ministry of Education had put in place a distance education programme in 2005 to provide untrained teachers in the country with the opportunity to study for a diploma in basic education. All these initiative are only an add-up for a teacher to gain the upper hand in the selection and appointment process but not a requisite. In this regard, it is imperative that existing requirements and processes of selecting and appointing basic schools to head teachers in Ghana need a re-visitation and amendment which would require basic school headteachers to possess a qualification in School Leadership and Management or its equivalent before their appointment.

It is quite interesting to note that 18 years ago basic school headteachers in Ghana were selected and appointed based on the following criteria:

1. Qualification: the applicant must possess at least a Certificate 'A' or a diploma in education from a recognised teacher training college.
2. Rank: the applicant must at least be a Senior Superintendent.
3. Experience: the applicant should not be more than 55 years of age, with a least 3 years teaching experience and must possess good leadership and interpersonal skills. For mission schools, the applicant must be affiliated to a religious body. (Ministry of Education, 2000)

Bush & Oduro (2006) remarked that because of inadequately qualified staff the Ghana Education Service select and appoint basic school headteachers through direct posting and interviews. They concluded that headteachers in Africa are faced with daunting challenges due to the lack of formal leadership training and this has made basic school headteachers ill-prepared to meet the demands posed by the changing nature of their jobs as compared to their counterparts in developed countries such as Canada, United Kingdom and the United States of America.

3. Methodology

The study adopted the exploratory sequential mixed method design. This design begins with qualitative data and then collects quantitative information (Creswell, 2009). Typically in this design, the researcher conducted the study in two phases, with the first phase involving qualitative data collection using semi-structured interviews. Twelve (12) former headteachers were sampled through snowballing and 18 current headteachers through random sampling from 129 basic school in the Central Region of Ghana. Four (4) Directors of Education were also purposefully sampled. The second stage of data collection was followed by quantitative data collection, specifically, a structured questionnaire with 195 former and 195 current headteachers who were snowballed and censused sampled from the 129 basic schools. The justification for using explanatory sequential mixed method design is to gather qualitative data to explore the past and current process of selection and appointing of basic school headteachers and then collect quantitative data to explain relationships found in the qualitative data. This was done through the identification of themes from the interview and from the findings, design an instrument to identify the relationship between what was and currently practised and suggest the way forward.

Cape Coast metropolis and the Mfantseman municipality in the Central Region of Ghana was purposely selected for the study because of the variety of basic schools in the study area. The population for the study comprised of both former and current headteachers and directors of education, and all basic schools in the Cape Coast metropolis and Mfantseman municipality.

Qualitative data collected from the 12 former and 18 current headteachers using a semi-structured were coded, categorized, and relevant themes were generated using Nvivo 10 software. To maintain confidentiality, participant identities, as well as their institutions, were concealed with pseudonyms. During the second stage, the themes that emerged from the analysis of the interviews were used to construct the structured questionnaire for data collection which included 394 participants

The intent of the researcher was to use quantitative data results to refine and extend the qualitative findings by classification that developed from the qualitative findings. Guided by the research objectives, questions and descriptive picture of the data obtained from the qualitative data, the quantitative data were correlated using the SPSS version 20. The data were analysed and presented in tables and charts using simple percentages, frequency distributions, and means.

4. Results and Findings:

Research Question 1: What has been the practice/process of selecting and appointing basic school headteachers in Ghana?

Research Question 2: What is currently practised by the Ghana Education Service with regards to selecting and appointing basic school headteachers in Ghana?

Research questions 1 and 2 were designed to find out the past and current practices in selecting and appointing basic school headteachers. From the available literature, basic school headteachers in Ghana are selected and appointed based on long service, rank, qualification, experience, and religious affiliation to a school. These selection and appointment are mostly done through interviews. The analysis in table 1 indicates that there has not been any significant change in the past and the current appointment of basic school headteachers.

Table 1: Selection and appointment of basic school headteachers.

Item	Former headteachers		Current headteachers	
	Mean	St.D	Mean	St.D
Long service	2.33	1.29	2.31	1.32
Academic qualification	2.18	1.162	2.16	1.164
Rank	2.31	1.322	2.33	1.28
Religious affiliation to a school	2.17	1.147	3.01	1.23
Advertisement	3.44	1.286	3.64	1.321
Certificate in Leadership	3.45	1.30	3.32	1.210
Interview	2.30	1.226	2.41	1.172

Source: Computed from field data 2018, n=195: n=195

Scale: 5= Strongly Agree, 4= Agree, 3= Neutral 2= Disagree, 1= Strongly Disagree

A mean score below 3.00 indicates agree and above 3.00 (disagree). The findings of the study revealed in table 1 indicate that the past practices of solely selecting and appointing basic school headteachers based on rank, qualification, experience, long service, and religious affiliation still exist in current times. The only major difference revealed in table 1 is a religious affiliation with a mean above 3.0 (3.01) signifying a disagreement. This finding indicates that currently, as it used to be in the past headteachers are not selected and appointed based on religious affiliation. This finding is in disagreement with a study conducted a decade ago by Afful-Broni and Dampson (2008) which found that 22.7% of basic headteachers became headteachers due to their religion to affiliation mission schools. Similarly, the findings of the study confirm that while countries such as Scotland, England, Australia, and the United States take into consideration professional and academic

requirement such as a certificate or a degree in school leadership and management, same is not given preference in Ghana.

Interestingly, a different dimension emerged from the interview with past and current headteachers. Out of the 12 former headteachers interviewed none of them agreed that the vacant position of headship that they applied for was advertised. However, 12 out of the 18 current headteachers interviewed indicated that they had circulars of the vacant position of headship for which they applied. Furthermore, 7 out of the 18 current headteachers confirmed that they had a masters degree in Educational Administration and school Leadership/its equivalent and had published some articles in local and international journals. These are some of the excerpts:

'well, I think things are gradually changing with regards to how we are selected and appointed. In the past, it was solely on long service, but I was appointed because I had masters in educational leadership and I have published 2 articles. I think I also did well during the interview' (current headteacher 5)

Current headteacher 2 echoed:

'the interview was very competitive as the vacancies were also circulated to all teachers to apply. I think I had the appointment because of my rank, long service, publication and above all my masters in educational leadership.'

These findings perhaps indicate that currently there is a paradigm shift from solely appointing basic school headteachers in Ghana based on long service, rank, and experience. A decade ago Afful-Broni and Dampson (2008) found that 59.1% of the basic school headteachers in Ghana were appointed based on long service and by virtue of their qualifications and experience although only 5% had certificates in educational leadership. The implication of this finding perhaps is that although some of the old practices such as religious affiliation, rank, experience, and qualification are still held in high esteem, current practices such as certification in school leadership, publication of articles and advertisement of vacant position for prospective applicant are the new directions in selecting and appointing basic school leaders. These findings contradict Amezu (1990) assertion that the Ghana Education Service who select and appoint basic school headteachers seems to be working on the assumption that a successful classroom teacher with the rank of a superintendent or above and experience necessarily makes an effective headteacher has lost its basis in the current appointment of basic school headteachers.

From the on-going discussions it worth noting that much emphasis in the selection and appointment of basic school headteachers is placed on the final stage which is the interview. This to a large extent serves as the weakness of the whole process. It is important that the whole evidence for selection and appointing of basic school headteachers should include the original application, the references, feedbacks from panels, observation, other assessment methods, and the interview. In this regard, Middlewood (1997) argues that the process of selecting and appointing school leaders should be conducted centrally through assessment centres so that those who are successful can be nominated as having reached the required standard.

Research Question 3: At what level of leadership are the basic school headteachers managing their schools?

The findings of the study established that basic school headteachers selected and appointed to lead basic schools in the study area have been managing their schools at 5 levels of leadership as shown in figure 1.

Figure 1: Five levels of leadership

Adopted from Collins (2007)

Analysis from the quantitative data indicated that 92% of the basic school headteachers managed their schools at level 1 (highly capable individual) of the 5 levels of leadership. At this level of leadership, basic school headteachers make productive contributions through their own talent, knowledge, skills and good habit gained through long service in the teaching profession. The bio-data of these headteachers indicate that majority (85%) of them have been in the teaching profession for over 15 years, while 73% of them have been in headship position for over 8 years. With regards to age, all of them were over 40 years. These are the excerpt from 2 current headteachers.

'Well as I said earlier, I am 55 and getting close to my pension, and I have been headteacher for over 15 years. Since being appointed, I have been using my experience and knowledge gained on the job to lead my school' [headteacher 1]

I think I possess certain talents and traits that put me into favourable position as a leader. Although I don't have any certificate in leadership, I have been able to lead this school to improve. I mostly rely on my talent and experience.

District Director (A) confirmed that majority of the headteachers who have no formal certification and training in leadership manage their schools through their knowledge and experience gained on the job.

'It is difficult to have a basic school headteacher with a qualification or formal training in School Leadership or Management. Only a few have such qualifications, so most of them rely on their experience and talent to manage their school'.

At the second level of leadership (contributing team manager), the findings of the study revealed that 63% of the current headteachers were team players where they have contributed to individual staff members capabilities to the achievement of group objectives. These basic school leaders indicated that through experiences and trial-and-error they had worked effectively and efficiently to manage both human and material resources to improve their schools as indicated in the excerpt below.

'Well my first 2 years was filled up with trial-and-error coupled with isolation and individualism...., but now I have learned, and before I left my position as the head I was able to become a team player' (Former headteacher 7)

In modern school leadership especially in Ghana where school cultures of collaboration in which decision-making is the no longer exclusive preserve of headteachers, and yet heads remain responsible and accountable for the school's success, a key leadership skill that these heads displayed was their ability to manage the boundaries of autocratic and democratic decision-making in their school.

Competent school leaders are very scarce in the 21st century where school leaders are expected to improve their schools with limited resources. The third level of leadership displayed by headteachers in the study was competent school leaders. Surprisingly, in spite of cultural, geographical location of schools, experience and academic qualifications of the headteachers, the challenges faced by them had more commonalities than differences. The only difference lies within the new (novice) and old headteachers (veteran). At this level of leadership, the findings of the study revealed that 45% of the headteachers were able to organize teachers and resources towards the effective and efficient pursuit of the organisational goals. Collins (2007) however, argues that leaders at this level are faced with daunting challenges such as management of time, implementation of government policies and school improvement projects. Similarly, almost all the headteachers interviewed in this study echoed similar challenges. One of the current headteachers indicated that:

'I have been a headteacher for the past 15 years, and I still face challenges in implementing new government policies as well as school projects. (headteacher 1)

Another former headteacher noted:

'well when I was the headteacher, although I managed both teachers and material resource well I still found it difficult in improving my school' (headteacher 3)

Perhaps, these challenges are encountered by the majority of the headteachers at the competent managerial level because of the way they are selected and appointed to lead basic school without any laid down formal training and qualification for the newly appointed headteachers. It can also be inferred from the findings of the study that most of the headteachers in the study area are ill-prepared to meet the demands posed by the changing nature of their jobs as compared to school heads in developed countries. This finding perhaps justifies the reason why none of the headteachers were found at the 4th (Effective Leader) and 5th levels (Executive leader) where school leaders are tasked to catalyse commitment, vigorous pursuit of a clear and compelling vision, and building enduring greatness through a paradoxical blend of personal humility and professional will.

These levels according to Collins (2007) are the highest level in the hierarchy of leadership, and only a few are able to reach that level. From the on-going discussions, there is no doubt that majority of the basic school headteachers who are regarded as custodian and leaders of the school are seen as 'helpless' in managing their schools. One major step towards improving their situation is by empowering them. However, Dampson (2015) argues that their basic challenge is how to tap teachers' expertise and experience to facilitate enlightened decisions and build better educational policies. It is believed that when regular in-service training and workshops that are tailored to address the needs and demands of basic schools heads are periodically organised by the GES in collaboration with the University of Education to train headteachers in school leadership and management, headteacher will become effective and executive leaders.

Research 4: What is the way forward in selecting and appointing basic school head teachers in Ghana?

To answer research question, 4 headteachers were asked to rank their challenges. These current headteachers were grouped into new (novice) and old (veteran) headteachers. The novice headteachers were those with 6 months to 4 years, while the old (veteran) headteachers were those above 4 years experience as headteachers.

Table 2: Challenges are facing novice and veteran headteachers.

Novice	Rank	%	Veteran	Rank	%
Adoption of leadership style	1	51	Technology and paperwork	1	55
Financial management	2	25	Financial management	2	22
Staff management	3	8	Time management	3	9
Teacher empowerment	4	6	Teacher empowerment	4	6
Time management	5	5	School improvement	5	4
School improvement	6	3	Staff management	6	3
Technology and paperwork	7	2	Adoption of leadership style	7	1
Total		100			100

Source: Computed from field data 2018, n=195: n=195

No doubt the findings of the study has exposed that both novice and veteran headteachers are faced with daunting challenges. It is obvious from the rankings and percentages that majority (51%) of the novice headteachers are faced with the challenges of adopting a leadership style to suit their new environment, while in the same category only 1% veteran headteachers had such challenges. These findings confirm the study by Wildly and Clark (2011); Afful-Broni and Dampson (2008). According to Wildly and Clark (2011), novice teachers encounter feelings of professional isolation and loneliness and eventually affect their adoption of leadership style. Contrary, Afful-Broni, and Dampson (2008) found that 73.5% of the veteran headteachers were able to adopt favourable leadership style due to the resort of past experiences and trial-and-error leadership methods.

Similarly, the findings of the study that both novice (25%) and veteran headteachers (22%) are challenged with financial management concur with the findings of Bush and Oduro (2006), Liang (2011) and Gamage et al. (1996). Financial management in Ghanaian basic schools according to Afful-Broni and Dampson (2008) has been the major challenge facing basic school headteachers in Ghana. They argue that the bureaucratic nature of the Ghanaian educational administrative system where power and decision-making are centralized makes headteachers fail in their financial dispensation. Perhaps the failure of these headteachers may be attributed to their inadequate knowledge and skills in school financial management rather than the bureaucratic nature of the Ghanaian educational administrative system.

In addition to these challenges, technology and paperwork were ranked first by veteran headteachers (55%) while novice headteachers (2%) ranked the same item last. This finding may imply that the new generation of basic school headteachers is more computer literate than their older generation. Excerpt from the interview substantiate the findings.

Veteran headteacher (3) narrated:

'honestly, my major challenge over the 18 years I have been headteacher is in relation to the use of computers and other technology to be effective and efficient. You know I'm an old school. But I still did my best.'

Another veteran headteacher (8) echoed: '

I don't know how to develop power points or use other software on the computer to generate broadsheet or for the workshop. It keeps slowing me down so I always have to rely on other people'

From these findings, the way forward for the selection and appointment of basic School headteachers is to develop the knowledge and understanding of the context within which each headteacher finds him/her herself and operate from. This is particularly important for both novice and veteran headteachers because as pointed out by Pinar (2014), understanding the particularity of the place meant understanding subjectivity's reciprocal relation to reality, simultaneously constructed by and contributing to the creation of place. With regards to context, Webber (2013) distinguished between two approaches for novice and veteran headteachers. One, a standardised programme designed for application in all settings regardless of the cultural context and characteristics of the group of leadership and two, design programmes for headteachers with regards to the context in which they operate from. Additionally, studies indicate that most human interactive which form part of the selection process, the interview, is particularly prone to prejudices. Norris (1993) and Riches (1997) argue that interviewers often make up their minds about a candidate within the first five minutes of the interview and consciously or unconsciously spend the rest of the interview trying to justify their judgement. This situation to a large extent affects the selection process. The need for consistency and objectivity in selecting and appointing basic school headteachers in Ghana is paramount. In moving forward, a structured approach which involves who will be involved in the process (personnel); the standard by which candidates will be assessed (criteria); what should be important in the criteria (weighing); how will the candidates performance be assessed (Instruments) and lastly, making the decision (matching) should be considered before an appointment is effected. It is equally important to include professionals and lay people such as students and other stakeholders in education to be part of the final decision.

5. Conclusion and Recommendations:

In conclusion, there is no doubt that looking back most of the practices and procedures for selecting and appointing basic school headteachers are still in use. Moving forward, the findings of the study indicate that although some of the old practices and procedures are still in use, new practices and procedures such as a degree/certificate in Educational/school leadership, attendance conferences, and publication of articles serves as an add-up in selecting and appointing basic school headteachers in Ghana.

Based on the findings the researcher recommends that the Ghana Education Service invest much time and energy in the selection of appropriate candidates to lead basic schools in Ghana. For members of staff to be appointed they must subscribe to the school philosophy and ethos, have the commitment and potential to develop as individuals and make a valid contribution to the school community. No appointment should be made at any level without the candidate being observed in teaching and research. In addition, candidates should be subjected to a range of leadership activities such as mentoring, class management, leadership traits, presentation, group management, chairing of meeting and involvement in school and community activities. Outside the normal interview process, other methods that can be employed to secure high-quality staff for headship position include; formal and informal networking with colleagues within and beyond their locality, building links with local universities and colleges where appropriate.

Once appointed, the school and the local education office should be committed in the professional development of basic school leaders. Much emphasis should be placed on promoting leadership and responsibility at all levels in order to create a team approach to school improvement. Additionally, increasing the amount of reflective and sharing of good practices among basic school headteachers will enhance their leadership skills. Basic school headteachers should be mandated to observe each other in their leadership role and form a networking platform and reflect among themselves their leadership roles.

It is further recommended that the preparation programmes of basic school headteachers should reflect upon their the difficulties and strategies headteachers face when they challenge directives, policies or stakeholders that undermine their commitment. Lastly, the preparation programmes of basic school headteachers should include

the development of entrepreneurial skills to identify opportunities to learn in both public and private settings, embrace cross-cultural relationships, especially in their Ghanaian communities and this to a large extent will enrich the leadership skills of both novice and veteran school leaders in Ghana.

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Measurement of International Students' Acculturation in High School Field

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Abstract

This article selected 7 high schools from 5 districts of Shanghai, asked 165 participants of international students who studied in local class to fill in cross-cultural adaptation scale for international students in local high school (CCAS-ISLHS). This scale refers to cross-cultural adaptation scales and acculturation inventories of Cross-cultural Adjustment Scale (CCAS), Acculturation Attitude Scale (AAS), Sociocultural Adaptation Scale (SCAS), Acculturation Rating Scale for Mexican Americans (ARSMA), and Suinn-Lew Asian Self-Identity Acculturation Scale (SL-ASIA). CCAS-ISLHS contains 30 items as: academic adaptation (item=8), campus adaptation (item=9), language preference (item=6), self-adjustment (item=7), thus forming the 4 dimensions of the whole test. Structural Equation Modeling (SEM) was conducted by using Amos 17.0 to test the relationships among variables. The specified model had certain goodness of fit ($\chi^2(4) = 114.209, p < 0.05, GFI = 0.78, RMSEA = 0.301, SRMR = 0.194$). The correlations of variables can be analysed through daily practice and accumulated experience in the school field.

Keywords: Acculturation, Cross-Cultural Adaptation, International Student, High School, Shanghai

1. Introduction

The constructions of an international metropolis need international talent, so the population of foreign residents has become a key index for measuring metropolis' internationalization. This can directly reflect the cities' attract of foreign enterprises, international students, and foreign experts in the international labor market. (Z. W. Wang, 2007) In 2016 175,674 foreigners in Shanghai got permanent residence, including 31,230 Japanese, 21,497 Korea, 23,974 American, 9,453 French, 7,880 Canadian, 8,111 Australia, 6,446 English, 6,134 Singapore and so on. Among which 88,933 foreigners held a working visa, most of their spouse and child (under 18 years old) also got resident status. Those children also could receive K-12 education in Shanghai. Besides, 17,588 foreigners held a student visa, mainly were international students studying in Shanghai's higher education institutes, as well as international or local high schools. (Shanghai Statistical Yearbook, 2017) In April 2018, the Shanghai Municipal Education Commission published an information list of 36 international schools in Shanghai which can admit international students from kindergarten to high school (K-12). These 36 international schools can be sorted into 2 categories: (1) 22 Foreign schools and 7 Foreign Educational Academy Schools established by foreign institutions, international organizations or foreign-funded enterprises such like Shanghai American School, Shanghai Japanese Educational Academy and Shanghai Sundai School (Japanese Cram School). (2) International Division run by local schools, including International Division of High School Affiliated to Fudan University, and International Division of Shanghai Experimental School. (Shanghai Municipal Education Commission, 2018) In addition to international schools running independently,

international students can apply for admission to the International Division of Shanghai local schools. Those international students who have Chinese language basis can also have more opportunities to participate in local classes. (X. Zhao, 2011) In 2002, 71 primary schools, secondary school, and high school had qualifications to enroll international students in Shanghai (W.L. Yan, 2005; X. Zhao, 2011). In 2004, 2000 international students studied in 150 local schools approved by the Shanghai Municipal Education Commission. (W. L. Yan, 2005; X.Zhao, 2011; X.Zhao, 2012) In 2007, the number of local schools in Minhang District which recruited international students to attend local classes increased from 9 to 14, and accepted more than 1,000 international students studied with local students. (T. Ying, 2007; X.Zhao, 2011) In 2009 Education Bureau of Changning District collected statistics that 5 primary and secondary schools in this region enrolled 768 international students, among which 718 international students participated in local classes. In 2005, 16 local schools in Pudong New Area, including International Division of Jincai High School, International Division of No.2 High School Attached to East China Normal University, and International Division of Jianping High School totally enrolled 6074 international students, while this number in 2006 decreased to 2717 (Z. M. Wen, 2006). On Oct 2012, 17 qualified local K-12 schools in Pudong New Area directly enrolled 2782 international students from overseas. (Education Bureau of Pudong New Area, 2012) Along with the progress of opening high-quality education resources in Shanghai widely to overseas, more international students choose to study in local classes. Cross-cultural adaptation of international students participating in local classrooms and sharing the same campus with Shanghai students has drawn researchers' attention (X. Zhao, 2011).

This paper takes "acculturation," "cross-cultural adaptation," and "student" as keywords, searches databases as EBSCO-ERIC, ProQuest-PQDD, Taylor & Francis, Web of knowledge-Social Science Citation Index, select literatures from 2000 to 2017, finally finds out that the discussion of cultural adaptation in education fields most concentrated in the following eight categories: (1) Cultural Adaptation and Academic Performance of Domestic Minority Ethnic Students and Immigrant Students in Higher Education Institutions (Zheng K., 2017; Yoko B., Megumi H, 2014; Mokoukolo R.et al., 2008; Peguero A.A., 2008; Jazira A., 2005 ; Acosta O.M.et al., 2004). (2) Domestic students studying abroad especially in foreign universities and other higher education institutes. (Hamad R et al., 2013; WenMa, 2010; Caycedo, C.et al., 2010; Chavajay P.et al., 2008; Jia-Yan P.et al., 2007; Senel P.et al., 2007) (3) Acculturation of international students in K-12 schools.(Wong,S.T.et al., 2010; Nilsson, J.E.et al., 2006) (4) Acculturation of minority ethnic children and immigrant children in K-12 schools. (Madziyire S.M., 2017; Perreira, K. M.et al., 2006; Brown B.et al.,2004; Krampen G.et al., 2002; Livaditis M.et al., 2000; Bhattacharya G., 2000; Bauman,S., 2008) (5) Acculturation and education of refugee children. (Dodds, Agnes E.et al., 2010; Sarr, K. G. et al.,2010; Tadesse, S.et al., 2009) (6) The influence of teacher and student cultural background differences on academics. (den Brok P, et al., 2010; Eick, C., Valli, L., 2010;Archer, L. et.al, 2010) (7) Cultural adaptation during youth's socialization process (Abramova, M.A.et al, 2009; Washington C.S.et al., 2008; Duan C.M.et al., 2000) (8) Cultural adaptation of immigrant family members and spouses of foreign students (De Sousa CSP. et.al, 2017; Hwang,W. C.e t al, 2009; Zadeh, Z. Y.et al., 2008; Cho, K. et al., 2005).

Besides this study selected and combined "acculturation", "cross-cultural adaption", "student" as keywords, set published period from 2000 to 2017, searched Chinese literature databases as: CNKI, Wang Fang data, etc., and found out that most related studies focus on applied research, absorbed cultural adaptation theories overseas to review and analyze the current phenomenon in China. Mainly studies of acculturation concentrated on three subjects: international students' education, immigrant education, and minority education. Highly spotted topics involved in 5 categories: 1) Research on the adaptation of overseas Chinese ethnic groups. 2) Research on cultural adaptation in second language learning. 3) Study of acculturation in specific regions or groups, such as the new immigrants to cities. 4) Acculturation of minority groups, especially minority students' adaptation in main universities. 5) Acculturation of international students in local schools, especially in universities and colleges during the higher education stage. International students in local K-12 schools mostly happened in a metropolis such as Beijing, Shanghai, and Hong Kong. Due to the limited scope and small amount, the phenomenon of international students studying in local K-12 schools has not gotten enough attention. Add in "international student" and" foreign student" as keywords, select abovementioned database, and it turns out that no more than 40 papers focus on international student or foreign student study in local K-12 schools. No more than 20 papers have talked about an international student or foreign student' acculturation during studying in

local K-12 schools. Though continuing efforts made by state education commission, regional education bureau, related schools, teachers, local Chinese students, and international student, obviously scholars and researches from universities and institutes have not paid enough attention to this common phenomenon especially in a metropolis.

Above all this study tries to describe international students' acculturation during studying in Shanghai's local high schools. In this study, cross-cultural adaptation scale for international students in local high school (CCAS-ISLHS) is designed to analyze international students' acculturation.

2. Method

2.1 Participants and procedures

In qualitative investigation there are no specific or strict regulations of respondents' number, the actual operation proposes "most saturation and difference of information." When choosing the school sample, researchers should not only calculate the total size of the statistic but also notice the multiple aspects of other information, make sure to retain the biggest difference between the research objects (J. M. Zhao, 2011).

This article selects 7 schools from 5 districts of Shanghai, considers the following 7 points: (1) Take urban district, suburb region, and new area into account, consider geographic locations of different schools. (2) At least 3 years' uninterrupted admission of international students studying in campus, schools which have a longer history of international students' enrollment is in priority. (3) Take grade, facility, and teaching characteristics into account. (4) Choose schools which accumulate rich experience in intercultural management, willing to provide a deep description of cases. (5) Select those schools preferentially which set international division and have more than 10 international students participating in local classes. (6) Pick out those schools which make great efforts to promote the participation of international students attending local classes and provide auxiliary curriculum (X. Zhao, 2011). (7) Decide school samples are high schools or have senior grades from 10 to 12, opt student samples are international students from 15 to 19 years old in those schools. The Chinese school year starts from the first year's September to the second year's June, includes 2 semesters: the first year's fall semester and the second year's spring semester. The first-round questionnaire (2010 spring) started from March 2010, finished in June 2010; the second-round investigation (2010 fall) started from Oct 2010, finished in Dec 2010; the third round interview (2012 spring) started from Mar 2012, finished in May 2013. Totally 165 International students (71 males, 94 females; mean age = 17.3 years, SD = 1.43; 123 from grade 10, 42 from grade 11) from 7 schools filled in the questionnaire and accepted interview (Table 1).

Table 1 Participates of School (2010)

School Name	School Type	Grade	International Division	location	Participate in local class and campus activities
JP High School	public experimental high school	10-12	√	PD district	N=57
JC High School	public experimental high school	10-12	√	PD district	N=17
XM High School	public experimental high school	10-12	√	L district	N=11
JQ Experimental School	private school	K-12	√	C district	N=14
GQ foreign language school	public school	7-12	√	P district	N=29
JH High School	private school	7-12	√	P district	N=21
DT High School	public experimental high school	10-12	√	H district	N=16

Those 7 participated schools have all set International Division in the same campus or in quite near neighborhood, such as just across the street. International Division takes in charge of international students'

academic and daily management. International students who are studying in Grade 10, sometimes in Grade 11, holding HSK Level 4/3 or higher, can apply for participation in local class and/or campus activities.

Table 2 Statistics of participated schools (2010)

School Name	International students participate in local class and campus activities	International students in Campus (International Division Size)	School Size
JP High School	57	57	2100
JC High School	17	230	1800
XM High School	11	80	1700
JQ Experimental School	14	103	3000
GQ foreign language school	29	50	1200
JH High School	21	39	1300
DT High School	16	40	1700

Those 165 participates of international students who studied in a local class can be divided into 4 categories:(1) Exchange students sent by International Education Exchange Organization like AFS (American Field Service), YFU (Youth for Understanding), EIE (Europe International Education Service Center). (2) Oversea enrolled international students who approve basic education of China, want to experience Chinese culture. (3) Expatriate children of foreigners, who company their parents living and studying in Shanghai. In this study, in order to facilitate statistics, this article has divided 165 participates into 2 groups on the basis of high school diploma achieving or not (Table3).

Table 3 Participates of Non-Diploma Students and Diploma Students

Category(N=165)	Characteristic & Description	N
Non-diploma Students (N=76)	International exchange students	N=24
	Temporary study for Expatriate children	N=18
	Chinese born overseas, hold of foreign nationality	N=12
	Oversea enrolled international students	N=19
	Temporary Chinese culture experience	
	Others	N=3
Diploma Students (N=89)	Who wants to apply for Chinese universities	N=37
	Who wants to apply for domestic universities	N=23
	Who wants to apply for other foreign universities	N=25
	Others	N=4

2.2 Measurement

2.2.1 Literature Review

Cross-cultural adaptation is a traditional topic discussed in many fields such as psychology, anthropology, sociology, and other different disciplines. Related studies involve etymological backtracking, research models, stage diagrams, influencing factors, and measurement tools for acculturation. (Cuellar L.C., Harris, R.,1980; Chataway C.J., Berry J.W.,1989; Ward C., Kennedy A.,1999) Cross-cultural adaptation models were primarily used to describe elements of the acculturative process of minorities such as immigrants, refugees, and indigenous peoples. Although numerous models of acculturation exist, for example Berry's multi-dimensional model of cross-cultural adaptation (Berry W. J., 2005), Bourhis' Interactive Cultural Adaptation Model (IAM) (Bourhis R.Y., Moese L.C.,et al, 1997), Piontkowski's relative cross-cultural adaptation expansion model, Navas's Relative acculturation extended model (RAEM) (Navas M., García M.C., et al, 2005), Toth's fusion model (Arends-Toth J, Van de Vijver F. J. R., 2004), Eric Kramer's theory of Dimensional Accrual and Dissociation (DAD) (Kramer, Eric Mark, 2012) as well as Fourfold models. Inventories were developed to consider and measure intercultural conflict and adjustment. This paper mainly referred to cross-cultural adaptation scales and acculturation inventories of Cross-cultural Adjustment Scale (CCAS), Acculturation Attitude Scale (AAS),

Sociocultural Adaptation Scale (SCAS), Acculturation Rating Scale for Mexican Americans (ARSMA), and Suinn-Lew Asian Self-Identity Acculturation Scale (SL-ASIA).

Cross-cultural Adjustment Scale (CCAS) was proposed in 1989, which is now one of the most popular cross culture adaption measurement and scales. This Scale designed 5 levels, involving: willing to live, adjust, previous international experience, viewpoint before going abroad, and cultural novelty (Black J.S. & Stephens G.K., 1989).

Acculturation Attitude Scale (AAS) consists of 4 subscales, a total of 38 items from 4 aspects to measure the cultural adaptation, namely as: integration, assimilation, separation, and marginalization (Chataway C.J., Berry J.W., 1989; Berry J.W., Poortinga Y.H., Pandey J., 1996; Serpell R., 1997).

Sociocultural Adaptation Scale (SCAS) concludes 41 items, covers dating, transportation, shopping, social adaptation, details of local customs and daily life, and finally give a personal evaluation of cross-cultural contact as well as social and cultural difficulties. Subjects report less difficult, that means more adapt to the host country's cultural environment. (C. Ward & A. Kennedy, 1999) Later Colleen Ward et al. revised and adjusted SCAS, and carried out the Revised Sociocultural Adaptation Scale (SCAS-R) (Ward C., Bochner S. & Furnham A., 2001).

Acculturation Rating Scale for Mexican Americans (ARSMA) is extensively used for African Americans in Mexico as evaluation tools including 20 items. ARSMA assesses of the Mexico American's adaptation of American white culture in the level of language use and preference, ethnic identity, social relations, and daily activities (Cuellar I., Harris L.C. & Jasso R., 1980). The Acculturation Rating Scale for Mexican Americans Version 2 (ARSMA-II) was proposed later (Cuéllar, Arnold, & Maldonado, 1995).

For a long time, most psychologists have used Asian Self-Identity Acculturation Scale (SL-ASIA scale) (single dimension) to study the cultural adaptation of Asian immigrants (Lim K.V., Heiby E., Brislin, R. et al., 2002), or choose revised SL-ASIA scale. (Suinn, Rickard-Figueroa. Lew & Vigil, 1987) Asian American Multidimensional Acculturation Scale (AAMAS) measures the multiple facets of acculturation (Gim Chung, Kim, & Abreu, 2004): acculturation to host culture, acculturation to Asian culture of origin, as well as acculturation to pan-ethnic Asian American culture defined as "a consistent underlying structure for an emergent pan-ethnic culture in the domains of cultural identity, language, cultural knowledge, and food consumption" (Gim Chung, Kim, & Abreu, 2004).

2.2.2 Design of Measurement

This paper refers to those cross-cultural adaptation scales and acculturation inventories and carries out a cross-cultural adaptation scale for international students in local high school (CCAS-ISLHS). This scale contains 7 subscales, 50 items and applies in the Likert scale, tries to describe those international students who choose to study in local high schools and participate in Chinese students' classes. CCAS-ISLHS designs 7 subscales: (1) academic adaptation, (2) classroom adaptation, (3) campus life adaptation, (4) campus communication adaptation, (5) campus cultural identity, (6) language preference, (7) self-adjustment. (Table 4)

Table 4 Subscales of CCAS-ISLHS

Subscales	Items	Resource & Reference
academic adaptation	7	others(6), CCAS(1)
classroom adaptation	7	others(7),SL-ASIA(1),AAS(1)
campus life adaptation	10	others(11), SCAS(2)
campus communication adaptation	8	others(3), CCAI (2)
campus cultural identity	10	CCAS(4),AAS(1),ARSMA(1),others(4)
language preference	4	ARSMA(2),others(2),SL-ASIA(1)
self-adjustment	4	CCAS(1), others(3)

Each subscale of CCAS-ISLHS focuses on different points as follows. (Table 5)

Table 5 Contents of Subscales for CCAS-ISLHS

Subscales	Contents
Academic adaptation	Curriculum requirements Self-assessment Formative evaluation Satisfaction with local courses
Classroom adaptation	Hold a post of class cadre or grade leader Organize or take part in class activities Relation with classmates, head teachers, subject teachers
Campus adaptation	Teaching facilities Domestic installation Regulatory framework Code of conduct
Intercultural communication	Student organizations Campus activities Family-school relationship Student collaboration Communication between teachers, local students, and administrators Coordination with community
Campus cultural identity	Campus Context Student identity
Language preference	Native language preference Foreign language preference
Self-adjustment	Guest life Acceptance of campus cultural differences Tolerance of campus cultural differences Adjustment of learning objectives Adjustment of learning habits Adjustment of living habits Adjustment of interpersonal relationship

2.3 Analysis of subscales of CCAS-ISLHS

165 international students participants from 7 schools ranged in age from 16 to 19, with an overall mean age of 17.3. Female participants (n=94) outnumbered male participants (n=71). Non-ethnic Chinese students hold of foreign nationality (N=98) comprised of the largest ethnic group, Ethnic Chinese students hold of foreign nationality (N=67). Non-diploma Students (N=76) comprised of 46.06%, diploma students (N=89) comprised of 53.94%. Ask participants to fill in subscales, using 5 points-Likert scales (Likert, 1932) to describe personal cross culture adaption as: 5- strongly agree with; 4-agree with; 3-not sure; 2-not agree with; 1-strongly disagree with. Input data into SPSS 15.0, CCAS-ISLHS scale, got Cronbach's alpha=0.737, and was suitable for further analysis. Use KMO and Bartlett's test of sphericity for factor analyze, got KMO=0.703, Df=51 (Table 7), as there is a common factor between the correlation matrix, which is suitable for factor analysis. Principal component analysis is used to extract the commonness of the 50 items mentioned above. (Table 6)

Table 6 Kaiser-Meyer-Olkin Measure of Sampling Adequacy

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.703
Bartlett's Test of Sphericity	Approx, Chi-Square	291.435
	Df	51
	Sig	.000

Click on the display of scree plot factors, from the fourth factors after the slope line is very flat, thus preserving the front 4 factors, the first common factor variance is usually the largest, which was 3.946, followed by the

second factor variance 3.217, the third factor variance is 2.143, the fourth factor variance was 1.586. The characteristics of the shaft are 5.291, 4.780, 1.469, 1.231, finally get 4 common factors eigenvalue greater than 1, which were named as an academic adaption, campus adaptation, language preference, self-adjustment, thus forming the 4 dimensions of the whole test (Table 7).

Table 7 CCAS-ISLHS (revised)

CCAS-ISLHS (revised)	
Factor 1: academic adaption	Q: How do you perform in the local course as Chinese language and literature?
Factor 2: campus adaptation	Q: How do you like the food in the school canteen?
Factor 3: language preference	Q: Would you like to talk with a classmate in Chinese?
Factor 4: self-adjustment	Q: Do you have difficulty in adjusting yourself to adapt to local class?

CCAS-ISLHS (revised) contains four dimensions for measurement of international student's acculturation. Items were answered using a 5-point scale (from 1="strongly dislike" to 5="completely like").

Table 8 Correlations of variables

	1	2	3	4	5
1. cross-cultural adaptation of international students in local high school	—				
2. academic adaption	.323**	—			
3. campus adaptation	.201**	.523**	—		
4. language preference	.106**	.213*	.177*	—	
5. self-adjustment	.118**	.192**	.152*	.144**	—

* $p < 0.05$.

** $p < 0.01$.

*** $p < 0.001$.

3. Results

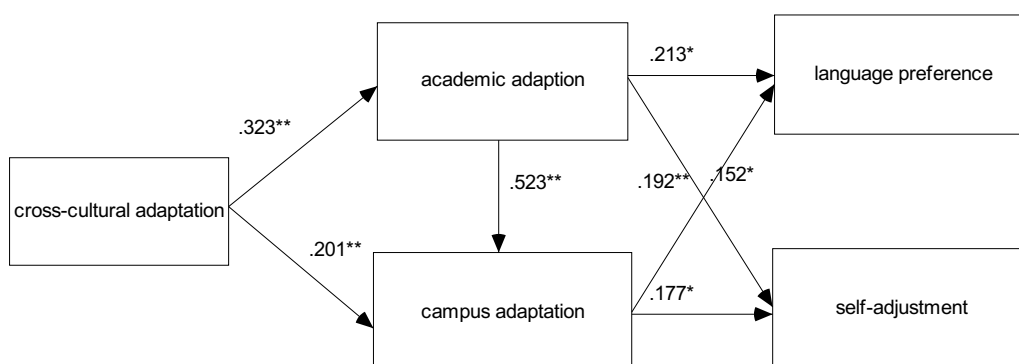
3.1. Descriptive analyses

Correlations of the variables are provided in Table 8. The cross-cultural adaptation was positively correlated with academic adaption, campus adaptation, language preference, and self-adjustment. Four factors were correlated with each other.

3.2. Main analyses

Structural Equation Modeling was conducted using Amos 17.0 to test the relationships among variables. The specified model, reported in Figure 1, had certain goodness of fit ($\chi^2(4) = 114.209$, $p < 0.05$, GFI = 0.78, RMSEA = 0.301, SRMR = 0.194). The results through path analyses indicated that student identity was associated with academic adaption, campus adaptation, language preference, and self-adjustment. Student identity, academic adaption, campus adaptation, language preference, and self-adjustment were associated with cross-cultural adaptation. Language preference had a correlation with academic adaption, campus adaptation, and student identity. Student identity had a correlation with self-adjustment. The results reported here were obvious as there were several practical experiences for analysis. First, academic adaption and campus adaptation interacted with each other; international students who had Chinese language preference usually got a better academic achievement, and more used to campus life. Second, international students' identities were gradually conducted by daily learning in school, campus life, and application of Chinese language. Third, international students adopted self-adjustment to achieve individual identity. In addition, international students' cross-cultural adaptation was comprehensively directly and indirectly affected by achievement in academic, daily school performance, language preference, through self-adjustment to achieve student identity.

Figure1 Structural Equation Modeling of CCAS-ISLHS (revised)



4. Discussion

The goal of the present study examined the associations between cross-cultural adaptation, academic adaptation, campus adaptation, language preference, and self-adjustment. It has addressed two questions. First, how academic adaptation and campus adaptation were related to cross-cultural adaptation. Second, did academic adaptation and campus adaptation mediate the relationships between cross-cultural adaptation and language preference as well as self-adjustment? Consistent with the previous studies, the present research demonstrated that academic adaptation and campus adaptation were positively related to language preference, and self-adjustment. International students pursuing faster and better acculturation of studying in local campus shared attributes such as: used to meals provided by dining hall, adapt to dormitory or homestay, communicate fluently with Chinese people and achieve better in academic. In addition, the results through path analyses indicated that cross-cultural adaptation was associated with language preference and self-adjustment through the mediation of academic adaptation, campus adaptation. It means that language preference and self-adjustment may calibrate academic adaptation and campus adaptation, which in turn result in individual differences in acculturation. The correlations of variables can also be analyzed through daily practice and accumulated experience in the school field. In order to improve international students' cross-cultural adaptation level, all 7 participated schools require that those international students at least get HSK 3 level certificate, otherwise, international students should at first turn to international division in the same campus to search for language training. All participated schools sell western food like sandwich, hamburger, and pizza in the dining hall. 3 participated schools provide single or double room for international students in the dormitory, while most local students share a triple room or quadruple room. International students are encouraged to demonstrate national customs in school activities, as well as welcome to experience Chinese traditional holidays and food during homestay or family visit. In addition, some potential limitations of this study should be acknowledged. Most notably, it is correlational in nature, limiting our ability to draw conclusions about causal links.

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Who is Responsible for the Child's Moral Character Education?

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Abstract

This paper tried to answer the question: 'Who gives the child's moral character education, is it a family responsibility, a collective responsibility or the sole responsibility of a certain institution? After the review of some theories of moral character development and or education, an effort was executed to investigate the various institutions that interact with the child as regards his moral character education. A conclusion was drawn that the moral character education of the child is not the sole responsibility of just a certain institution; rather, different social institutions must cooperate and interact effectively in order to provide the child a meaningful moral character education. Several suggestions were made on how these institutions should interact in order to provide the child moral character education.

Keywords: Moral Character, Moral Character Education, Social Institution, Child

1. Introduction

Moral education generally has been regarded as an integral part of institutions such as the family, the religious bodies and the school. However, in recent times the influence of these institutions on moral development has diminished greatly, and the moral confusion being reflected in these situations is obvious to any critical observer. In the following part of this writing, I will give reasons and evidence to clarify this claim.

First, along with developing society, some of the features characteristic of many families today that have contributed to the diminishing influence of moral education. Not only is the father absent from the family a great part of the day, but the mother (in many cases) works outside the home in situations that do not permit her to be home when the children return from school. This decreases the amount of time, and contacts parents have with their children; thus, the opportunity to influence the moral thinking of children is greatly reduced. Further, many families are broken, i.e., one of the parents is dead, or the parents are separated or divorced. Hence, the family's influence on moral development is diminished further. Even when families are united, moral confusion exists since different family members hold to conflicting moral values and are not united on traditional value ideals.

Second, the religious bodies (such as Islamic, Christian, Hindu, Buddha, etc.) manifest features that tend to point to its decline in influence and its relationship to moral confusion. The lack of religious body attendance and respect for the authority of the religious body indicate the declining influence of the religious body on the world today. Further, moral confusion is apparent when the traditional, fixed moral doctrines upheld by the religious body have given way, in many instances, to the view of further some religious bodies leaders that, each person is autonomous and therefore must make up his (or her) own mind concerning moral values.

Third, some brief comments concerning the relationship of the school and moral development should be noted. Since the time of many of the Greek philosophers, the teacher has recognized the function of the school as a moral educator. Many educational scholars have recognized the school's role in moral development. Dewey viewed moral education as crucial to the basic purpose of a school. "The child's moral character must develop in a natural, just, and social atmosphere. The school should provide this environment for its part in the child's moral development". This statement reflects the general notion that the school **should** help to develop students' morals. However, this function of the school has become a much-debated issue. It generally is held by many who believe, although in many countries are not, such as Indonesia, in a separation of religious body and state that it is not the school's role to function in the development of moral values. These people believe that moral values are matters of private opinion and should not be discussed in the classroom.

Along with the development of the society and concerted review of the literature has revealed that moral character education is becoming an increasingly popular topic in the fields of psychology and education. Media reports of increased violent juvenile crime, teen pregnancy, embezzlements, and human rights violation, numerous abuses and suicide have caused many people both within and outside the country to declare a moral character crisis in several countries. Though not all of these social concerns are the moral character in nature, and most of them have complex origins. There is a growing trend towards linking the solutions to these and related social problems to the teaching of moral character and social values in both public and private schools. However, considerations of the role of formal education, either preparation, elementary, and secondary schools) can and should play in the moral character development of youths are themselves of the subject of controversial debate. There are quite often that most of them give argument according to their personal views rather than informed opinion. So who are the responsibilities of the child moral character development/education? Related to the question, the purpose of this is to try to give an answer "*Who is Responsible for the Child's Moral Character Education?*"

2. Methodology

After the clarification of some theories of moral character development, an effort was executed to investigate the various institutions that interact with the child as regards his moral character education. Several suggestions were made on how these institutions should interact in order to provide the child moral character education.

3. Result: Overview of Moral Character Development and Theoretical Background

3.1 What is the Moral character?

For the purpose of this paper, moral character is defined as right conduct, not only in our immediate social relations but also in our dealings with our fellow citizens and with the whole of human race. It is based upon the possession of clear ideas as to what actions are right and what is wrong and the determination of our conduct by a constant reference to those ideals. It is worthy of note that the definition of what is right conduct is relative, it is taken for granted for the purpose of this paper that right or wrong conduct is defined by the society. In other words, each society defines for itself what is right or wrong. Therefore, moral character is defined as right conducts as guided by or defined by the respective society.

Moral character is an evaluation of a particular individual's durable *moral* qualities. The concept of *character* can imply a variety of attributes including the existence or lack of *virtues* such as *integrity, courage, fortitude, honesty, and loyalty*, or of good behaviors or *habits*. Moral character primarily refers to the assemblage of qualities that distinguish one individual from another — although, on a cultural level, the set of moral behaviors to which a social group adheres can be said to unite and define it culturally as different from others.

Moral character can be also viewed as the "system of rules that regulate the social interactions and social relationships of individuals within societies and are based on concepts of welfare (harm), trust, justice (comparative treatment and distribution) and rights" (Smetana, 1989). This is how humans determine their actions based on their cognitive abilities to interpret a social situation. Issues of reasoning, problem-solving skills, self-control, and adaptability are components in exhibiting key components of the moral character process. For

some individuals, issues of values, personal feelings, and social norms are constructs for discussion and therefore can be seen as being influenced by the way in which moral character is taught or experienced in schools, churches, and other social institution settings. There are two approaches when dealing with moral character: *Normative ethics* involve moral standards that exhibit right and wrong conduct. It is a test of proper behavior and determining what is right and wrong. *Applied ethics* involve specific and *controversial* issues along with a moral choice, and tend to involve situations where people are either for or against the issue (Timpe, Kevin, 2007). V. Campbell and R. Bond (1982) proposed the following as major factors in influencing character and moral development: *heredity*, early childhood experience, *modeling* by important adults and older youth, *peer influence*, the general *physical and social environment*, *the communications media*, the teachings of *schools* and other institutions, and specific situations and roles that elicit corresponding behavior (Huitt, W., 2004)

In order to fully understand the development of moral characters, one has to consider the various aspects that exist within the moral character framework. For many, it is seen as a part of nature; others contend that it is a process of behavior development. From the naturalistic point of view, one sees moral character development stemming from a developmental perspective in that moral character is conceived through how children think, behave and feel about rules and regulations set forth within their world as a result of natural consequences. The moral character thought theorists perceive moral character development through a set of stages that build skills and then translate into a global perspective of the child. The moral character behavioral approach contends that reinforcement, punishment, imitation and situational presentation are factors that contribute to the moral character development of human being. Issues of self-control and cognitive capabilities play a key role in the moral character behavioral school of thought. All of these approaches connect to one assumption: that certain factors influence moral character development of the individual. It is the focus of this paper to explore these factors that are responsible for the moral character development of the individual.

3.2 Theoretical Background

Some might argue that concepts such as background, culture, or environment also greatly influence an individual's character. There are three primary factors influencing and shape character development or formation. These three factors are beliefs, experiences, and values (John F. Jensen, 2012). The experiences consist of culture, upbringing, background or environment). While backgrounds include religious, social life, culture, beliefs and education of the children family. So, an individual character is shaped by their *background, beliefs, education, and experience.*" In this matter, *background* and *education* stand alongside *beliefs* and *experiences* as character shaping factors. Are background and education then equal to beliefs and experiences as influencing factors in character development? Beliefs derive from upbringing, culture, religious backgrounds, and traditions." In other words, our upbringing, our culture, etc., are what informs and shapes our beliefs and our values; which in turn shape and inform our character. Moreover, our upbringing, culture, etc. are in fact experiences. Our family life and our culture are social experiences which shape our beliefs and our values.

When viewing the moral character thought approach, one could consider the psychoanalytical works of Piaget (1965) in that he postulated that formation of moral character development is viewed through stages of life that begin with the most basic needs and continues into a formal operational thought process that extends into adolescent years. Another psychoanalytical approach presented by Freud investigates the development of self through the Id, Ego and Superego and the various conflicts that arise during early stages of a child's development. The key within Freud's theory is how the child identifies with the parental figures and the way in which conflicts during those developmental years are solved by the child through the various aspects of the development of the self.

Kohlberg's social cognitive approach to moral character development combines the approach by Bandura in that moral character development is best understood through the context of social situations, judgments and cognitive factors that pertain to self-control and perception of self within the social setting.

3.3 Elements of Moral Character Development

It is quite wise to combine how each theory comes into play in the real world of the emerging child after having considered the influence of moral character development theorist. Moral character is part of a complicated reciprocal process that embodies within a social setting through interaction while conserving self-identity

(Smetana, 1989). Social interaction can be difficult to understand because, within every society, there are rules, but these rules may not have been written. Hence conceptualization of rules, uniformities, and behavior can be conventions that are difficult for a child to interpret without assistance. Social influence and its connection to moral character development can come from the interaction that occurs naturally such as through conflict where there are a victim and observer of certain actions within a social context. This can account for the understanding of fairness and how it plays into the social realm. Killen and Nucci (1995) believe that this type of interaction within a peer group can positively influence moral character development.

As mentioned above that an individual moral character is shaped by their *background, beliefs, education, and experience*. The closer of the children interacts with the more the children get information or experiences shaping the children's' beliefs. As usually, parents and or caregiver are of the closest contact and communication of children. So parents and or caregiver play an important role in their moral character development of children, especially the affective components of parents, caregiver and children interactions. The effective components of those interactions, such as parental warmth, involvement, and support, are related to moral reasoning development (Hart, 1988; Powers, 1988; Walker & Taylor, 1991). Therefore, a warm, supportive bond between parents and children may enhance the likelihood that children are motivated to listen to and respond to parental messages. The approach used by the parents and or caregiver has the greatest impact on how the child will internalize the moral character lessons being taught. Therefore, the level of bonding between child and parents/caregiver yields a more productive environment to receive information pertaining to the moral character issues. This yielding to moral character teaching is based primarily on the reactionary process of the caregiver through the level of affect presented by the adult. This, in turn, brings the moral character and social message to the child in a more concrete fashion. As with anything in the developmental lifespan, too much or not enough of something can create adverse or opposite effects which may or may not be the intention of the caregiver. The affective components, therefore, the level of moral character development within the adult contributes to the internalization of the moral character concept.

According to social domain theory, children construct different forms of social knowledge, including morality as well as other types of social knowledge, through their social experiences with adults (parents, teachers, and other adults), peers, and siblings (Smetama, 2004). Experience within the social setting will lead to comprehension of concepts. Through modeling, observation, and role-playing, children are able to make the correction between parental and peer interactions and how they fit into moral character schema. The results of several studies suggest that children actively evaluate social messages in terms of their domain appropriateness and reject messages that are domain inappropriate and inconsistent with the nature of the event (Killen, Breton, Ferguson, & Handler, 1994; Nucci, 1984). Social learning theorists have asserted that a "great deal of human learning and behavior is a function of observing and imitating the behavior of models and that this learning can be explained largely through operant conditioning principles" (LeFrancois, 1999). Therefore, the justice to be served to the child stems from "taking on the complex task of developing an adult's maturity and ethical capacities" (Weissbourd, 2003). "These qualities and beliefs emerge and continually evolve in the wide array of relationships that every child has with both adults and peers starting nearly at birth, therefore relationships play a key role in the development of the moral character aspect of empathy (Weissbourd, 2003). This is where schools, family and community merge together to create the moral character development climate that ultimately becomes the moral character development classroom for children. This becomes their phenomenological approach to learning moral characters based on how they perceived their world and the messages that are transmitted daily by those with whom they interact with consistently.

Another aspect of moral character development is empathy which is commonly learned through social interaction. Empathy can be defined as the ability to feel or imagine another person's emotional experience. The ability to empathize is an important part of social and emotional development, affecting an individual's behavior toward others and the quality of social relationships (McDonald & Daniel S., 2010). In order for a child to understand empathy, the surroundings of the child must model and recognize when empathy occurs within a social context. Empathy is expressed by reacting to another's feeling with an emotional response or statement that reflects the other feelings. This begins as a way of understanding that someone may have a different point of view which evolves into the development of various perspectives when faced with interactions with those

who experienced unfortunate situations. This in term leads to an open mind and understanding of the complexity of the array of human emotions.

The influence of those within the context of the child's life moves beyond the emotional aspect to the cognitive development and its correlation to moral character development. Through the explanations made by the caregiver, caution and care must be taken to explain the consequences of actions. Kohlberg's theory of development takes on the assumption that fear and authority, satisfying personal needs, affection, and contracts and universal ethics are key steps that one must navigate through in life in order to become a moral characterized person, and this means that the intrinsic value of the learning experience must be emphasized in order that the experience becomes a part of the cognitive and social process of moral character development.

4. Discussion: Who is Responsible for the Child's Moral character Education

Although socialization theorists have viewed moral character internalization as stemming primarily from parents' influence on their children through their parenting practices, structural-developmental theorists generally have proposed that hierarchical nature of parent-child relationships constraint children's moral character development. This has led to the predominant focus on the formative role of peers and social institutions such as schools in moral character reasoning development and relative neglect of the role of the family (Smetana et al., 2004).

Talking about who is responsible for the moral character education of the child, Pakarsky (1998) "The Role of Culture in Moral character Development in Journal of Parenthood in America) recognized the role of culture above other variables in the moral character education of the child. He opines that a dogmatic conviction that schools are adequate to the challenge of making moral character sensibilities and disposition into the child is inappropriate. Tigay, H.Z. quoted in Smetana et all. (2004) on the other hand in addition to the roles of schools and parents in the moral character development of the child has also emphasized the role of religious institutions. Tigay, in fact, is of the opinion that the religious bodies have a major part to play in the moral character education of the child than any of the other agents. With these divergent views as expressed by authors, an attempt is made from hence, to begin to look at the roles of each of these agents in the moral character development of the child.

The Role of Parents in the Moral character Education of the Child

Most children ages 5 or 6 have developed basic components of conscience, a sense of guilt, the ability to distinguish between right and wrong and the capability to be empathic. But none of these elements of a child's moral character development will become fully functional for years (Danielson 1998). This in-between period is the ideal time for laying a solid moral character foundation in the child, and the group of adults that are best suited for this jobs is the parents (who are being referred to as the first moral character teachers and role models that young children have). "At this early age, parents have the opportunity of teaching respect for life and for others to the child... this teaching usually occurs as parents explain and reason with their children." (Danielson, 1998).

Parents are centrally important by virtue of their concern with their child's development and welfare, their affective relationship and extensive interaction history with their child, and their ability to provide the types of interactions that facilitate moral development (Smetma, 2004). Parents provide the most constant and visible models of behaviors associated with character development, and they also help by identifying other models of the character traits they want their children to develop and by raising appropriate character-related issues in discussions of daily events. Parents also assist by exposure to examples of behaviors that negate their own views of positive values and virtues. The approach used by parents has the greatest impact on how the child and parents yield a more productive environment to receive information pertaining to the moral character issues. The yielding to moral character teaching is based primarily on the reactionary process of the care given through the level of affect presented by the adult. This, in turn, brings the moral character and social message to the child in a more concrete fashion. As with anything in the developmental lifespan, too much or not enough of something can create adverse or opposite effects which may not be the intervention of the caregiver. Therefore, the level of moral character development within the adult contributes to the internalization of the moral character concept.

A great deal of research suggests that the quality of the parent-child bond and the degree of warmth in the parent-child relationship affect many facets of children's development (Bretherton and Waters 1985). Indeed, one of the most consistent findings from research examining the family interactions that facilitate Kohlbergian moral character reasoning stages is that the affective components or those interactions, such as parental warmth, involvement, and support are related to moral character reasoning development (Hart 1988; Powers 1988; Walker and Taylor 1991). Therefore, a warm, supportive bond between parents and children may enhance the likelihood that children are motivated to listen to and respond to parental messages.

In furtherance, parental affective reactions in conjunction with reasoning may facilitate moral character and social rules. Research by Arsenio reviewed by Arsenio and Lover (1995) has shown that children may employ affective response to transgression, understand differentiate and renumber moral character and social reverb. Indeed, previous research indicates that material responses to moral character transgressions accompanied by in tenure feelings lead to greater reparation among children than when cognitive messages are not so embellished (Grusec et al. 1982; ZalunWaxler et al. 1979). Parents are more likely to employ negative effect, including dramatizations of distress. Such affective responses used in conjunction with explanations that focus on the welfare of others will increase effective reasoning because it will help the children to focus on the harm or injustice they have caused and make amends or desire to make amends. One must not hesitate to mention here however, that research also indicates that there are optional levels or affective arousal, too much anger may be negatively arousing and therefore may inhibit children's focus on other feelings.

There is also an important cognitive component to parents' interaction with their children that may facilitate children's moral character development. Parents' communication with their children is one aspect of children's social experiences that may be used in the construction of moral character knowledge. By explaining the reasons for rules and responding appropriately to moral character violation, parents can facilitate moral character development by stimulating children to think reflectively about their actions. This assertion implies that the more explicit parents are about the nature of the event and why a behavior is expected or a misdeed is wrong, the more effective such messages might be, particularly for young children. Though there are situations where and when more indirect approaches may be more effective (Grusec and Goodness 1994).

This suggests, in turn, that reasoning, explanation, and rationale will be more effective than other types of disciplinary strategies in facilitating children's moral character development as well as development in other domains. More specifically, to effectively facilitate moral character development, parents have to explain moral character rules as well as responses to moral character violation by weighting the consequences of the acts for other's rights and welfare support for this assertion has been found in previous research, which indicates that parental reasoning and in particular, other-oriented reasoning (Holfman 1970) is associated with greater moral character internalization and the development of concern for others.

Summarily, parents are vital in the moral character development of the child because they are the first moral character teachers and role models that young people have (Danielson, 1998). This they do by providing the necessary effective relationship and extensive interactions that facilitates moral character development. Parents' responses to children's transgressions and moral character dispute and their explanations of the reasons for rules and expectations may facilitate children's moral character development.

Role of Teachers in the Moral Character Education of the Child

The school has been identified as a vehicle of "direct instruction" (Pekausky, 1998), it is a social institution in which is embedded a rich of norms, customs and ways of thinking of which the teacher is a conveyor. Apart from parents who have been referred to as the moral character teachers, school teachers are also very influential and significant adults in the lives of children starting from the pre-school years. Teachers help children to understand character traits and values, and they also model desirable character traits in the students both within the school setting and in the larger society. Young children often idealize their teachers, watch them closely and also try to emulate their behaviors. In order words, teachers are models to the students. Young people may view their teachers as authorities on subjects and seek their advice on many issues related to character and values. Teachers can help by maintaining a long-term relationship with students and using children's literature in the

classrooms that emphasize positive values and heroic action. Teachers also reference the moral character lessons that the children must have been taught at home. The inclusion of moral character lesson in the curriculum and ensuring its full implementation/ delivery is yet another way in which teachers have contributed to the moral character development of the child.

Teachers are directly involved in teaching behaviors that are right and correct those that are wrong to students in school. They also function as role models to the student. This does not imply that all teachers are good role models to students and that all teachers teach good moral characters, yet the fact remains that teachers have very important roles to play in the moral character development of the child.

Teachers teach children to respect the right of others; they also promote the acceptance of responsibility for one's actions. Teachers are responsible for the teaching of the importance of honesty, dedication, responsibility, and right behavior. Success or failure in the achievement of the building of a society that is made up of moral character upright citizens depends more upon the adoption of education methods calculated to effect the change than upon anything else. These methods formulated, executed and evaluated by the teachers, hence the relevance of the teachers in the moral character development of the child. In other words that teachers should be role models teaching character and moral values in their students to have moral integrity, it means consistently doing what is right, even when it would be easier to do something that is personally more beneficial.

The Role of Religious Institutions in the Moral Character Development of the Child

The role of religious institutions in the moral character education of the child cannot be overemphasized. Historically, moral character teachings have been central to all religions. For instance, historically speaking, since the time of the Bible, moral character teachings have been central to Judaism. The Bible is, at its core, a book of ethical teachings. Talmudic sages are seen as moral character exemplars, and medieval writers such as Bahya bin Pakudah and Maimonides, Moses Hayim Luzzatto in the 18th century and the Musar Movement of the 19th century developed a systematic approach to the ethical teachings of the Bible and Talmud in order to teach moral characters. The same goes for the Islamic religion. Religious institutions have a way of imparting moral character lessons in their adherents, and this is no more news to many in our country today. In fact, the present in focus of both national and international organization to the exploration of involving and using religious leaders in the campaign against the hydra-headed monster called HIV/AIDS because it is believed that the religious leaders exercise a significant level of control/influence on many people's thought process and decision making further confirms the importance and relevance of the religious organization in the moral character development of the child.

Where do we go from here?

From the above, it is impossible to say that the moral character development of the child is the sole responsibility of only one socialization agent, and none of the agents can be discarded. It is on this premise that this paper is suggesting an eclectic approach. A situation where there is a combination of and cooperation of the different agents of moral character development to achieve the moral character development of the child. For this to be realized, this paper has deemed it expedient to suggest some strategies to be employed by every institution that has an input in the development of the child.

Educators, religious leaders, and parents must see themselves as moral character models for children, and they must behave accordingly. Children are quick to pick up the values that adults hold dear. It is therefore important that they behave in a way, which reflects moral character values, or the child will quickly conclude that they are hypocritical. It, therefore, follows that adults in the society should live above board by living as good examples for the younger generation to follow. The teacher should not just teach moral characters, and he should live it and be a role model for the students he is teaching. The same thing goes for the parents and religious leaders. Educators, religious and parents must create a moral character community in the classroom, home and religious centers, one in which children are involved in decision-making, and the rights and responsibilities of all are upheld. In such an environment, moral character discipline fosters fairness and opportunities for moral character reasoning and self-control. Each child is respected and is never the object of ridicule.

The teacher must try to discover, affirm, and develop each child's special talents and strengths, building the child's self-respect and self-esteem (Thomas Lickona, 1991). Only when a child values himself is he ever likely to show respect and empathy for another.

The moral character dilemma - a critical thinking approach - acknowledges that preaching and lecturing won't work. In the early 1920s, John Dewey developed a theory of moral character education, which emphasized reflective and critical thinking rather than didactic moral character lessons. Dewey's theory has been developed in recent years by Laurence Kohlberg (1969, 1969, 1977, 1977) in the area of moral character education. The theory holds that youngsters need training and directed practice in resolving moral character dilemmas and that with the skills learned, young people will become more capable of applying these skills to real-life situations and choosing the appropriate path of behavior. The underlying expectation is that such reflection will create moral character mature citizens and therefore, a moral character community. Children will be challenged to move to higher and higher levels of moral character development. Children involved in such an approach to moral character development would become as adept at using critical thinking skills in the realm of Jewish/Islamic/Hinduism ethics as in the sciences.

Stories are a potent conveyor of moral character values and children of every age love to hear a good story. According to Lickona, Stories teach by attraction rather than compulsion; they invite rather than impose. Stories talk to the heart and have the potential to make a child identify with the values portrayed. Storybooks with stories of characters that through simple righteous acts, become heroes worthy of emulation are good for the moral character education of the child. Like the Musar Movement of the 19th century, we should be creating small, informal discussion groups for adolescents to talk about moral character issues together. Such groups would be most appropriate in youth group and camp settings.

We should create and utilize music for the teaching of moral character lessons. Some religious and non-religious groups alike have produced excellent recordings, which employ catchy tunes, and repetitive lyrics that keep moral character values on the tips of children's tongues. This should be further explored and employed to teach moral character education to the younger generation.

We must provide opportunities for service learning and opportunities to meet important people who have exemplified themselves as those who uphold moral character values. Our schools, religious groups, and families must provide opportunities for social action, sensitizing children to moral character issues. Such an approach will teach the people, especially our adolescents, that moral character behavior and social action are humanistic.

Educators, Religious leaders, and parents must help children to develop the coping skills of self-control, so they can just say no to resist temptation or use methods of conflict resolution. Rather than think out or devise an unethical or immoral character way of handling the situation. Summarily, therefore, these strategies for teaching moral character education to the child is stressing the importance of (a) knowing the good, a cognitive approach. (b) doing the good, a behavioral approach) (c) feeling or internalizing the good, which is an emotional and spiritual approach. Moral character education has the best chance of succeeding only if all three approaches - the cognitive, the behavioral and the emotional spiritual are used.

5. Conclusion

Someone has said that the role of moral character education in schools is to reinforce values gained at home. Each child from birth, by virtue of his environment, belongs to a significant group. Family members, friends, relatives, teachers, religious body and administrators play a major role in the formation of the character of each child. To expect the teachers solely to shoulder this important task is appalling. Although teachers traditionally have been expected to be "moral character giants" in the communities in which we live, the extent of their appropriate social status in the community has been questioned. One need only glance at newspapers to realize the manner in which teachers are viewed in this country by certain quarters. We need the right mandate and acknowledgment from society to allow teachers to mold its citizens.

To teach moral character education in today's schools is no easy task. We are being challenged by society itself

in upholding the values. When the society at large is not really committed to leading a good and moral characteristic life, what can we expect our youngsters to follow? We teach responsibility, the joy of sharing and a moral character code of conduct when dealing with the poor and helpless. We also strive to teach that there is dignity in one's labor and the like. However, the child is growing amidst unfairness, vulgarity, cheating, lying, deviant behavior, arrogance, torture, and tension. The children who are taught these values in school cannot see the relevance of this subject in their lives. Thus, they reject it by saying it is boring, not logical and irrelevant to them. Every child comes to us with a different world of varied experiences behind him that affect his learning. Many come with anxieties that overwhelm adults. When we impart the values to these students, some actually sneer or laugh at us. They even say how ignorant we are over what's happening in the society we live in.

Our children will not accept platitudes and lip service statements anymore. They are intelligent due to their exposure to various areas in life. They can see and read for themselves the discrepancies between the actions and dictums of many adults. Moral character leadership at home and school can only be offered by moral character persons. The children have failed to see such values being practiced in family life and in society. We must be mindful that each generation sets its own background, creates its own values, decides upon a plan of action and makes a contribution to society accordingly. The family unit plays a vital role in molding such a generation. But, truthfully, how many parents (educators included) practice the right values with their children? We have students telling teachers the vulgar words exchanged at home, types of VCD being watched in their living room lies told among them and getting away with it and demands and tantrums by adults. The crimes committed by adults are mind-boggling to our youngsters. They are watching silently and, soon enough, if they are not careful, they will join the bandwagon.

A clash of values has emerged lately. If left unchecked our younger generation will act without much conscience and fear for their fellow men. Superficial and trivial ways of living deny our human dignity and undermine integrity and truthfulness. We need to be an example to our children (irrespective of color, creed or religion) that life is not dependent on petty pride and contentment with illusions, buttressed by self-esteem. Instead, one should examine the deepest desires of one's heart and face up to reality and be able to complement emotions with good thoughts and sincere intentions. My personal philosophy is center on the fact that every young person is a living person with the tremendous potential to love and to hate, to succeed and to fail, to live or merely to exist. He has within him a spark of talent, accomplishments, of creativity and of love for his fellow man. Our job, as parents and educators, is to find that spark and nurture it to its fullest. In doing so, the adults in their lives, need to speak the same "language." Parents must not give contradictory messages to their wards as they begin to form principles, values, and ethics in life.

Teaching Moral character Education basically is reinforcing the values practiced at home and in society. It is high time all the different agents of moral character development worked as a team rather than push it to one party and expect any magic overnight. The observation is that everybody wants his children to grow up with a high moral character standard, but failure to provide an enabling environment for the achievement of this goal will lead to an inability to realize this goal. Therefore, the moral character development agents should work together and provide an environment where the young personality thrives and emerges a winner in every aspect of life.

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Nonverbal Immediacy Behaviour and Teacher Effectiveness in Secondary Schools of West Bengal

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Abstract

Teacher immediacy behaviour is the factor that have found strong association with students' learning outcomes. Although, both the verbal and nonverbal form of immediacy behaviour has been found association with students' learning, nonverbal immediacy behaviour is considered more important in students' learning than the verbal immediacy behaviour. The present study analysed the nonverbal immediacy behaviour of the mathematics teachers in secondary schools of West Bengal, and investigated its' impact on teachers' effectiveness. Necessary data were collected by using Nonverbal Immediacy Behaviour Scale and Teacher Effectiveness Scale. A total 1303 tenth graded students from 120 classes randomly selected to give response about their mathematics teachers. Results of the study indicate that there is no significant difference among the male and female teachers in their pattern on immediacy behaviour. The findings also indicate that nonverbal immediacy behaviour has a significant impact on mathematics teachers' effectiveness.

Keywords: Nonverbal Immediacy Behaviour, Teacher Effectiveness, Secondary Schools

Introduction

Last almost forty years of research in institutional communication has identified several interpersonal variables that are positively related to learning. According to DeVito (1986), teaching is a relational process that follows the developmental stages from initial contact, through intimacy to dissolution. Graham, West, and Schaller (1992) similarly describe that teaching involves a process of relational development and requires effective interpersonal communication skills to achieve satisfying outcomes. Interaction between teacher and learner is one of the key elements for teaching-learning process. Teaching-learning interaction like other interpersonal relationship, are characterised by both explicit and implicit communication. Researchers have found that the degree of immediacy between teacher and the students are crucial to the teaching-learning process.

During the past decade, immediacy behaviour has been primarily used to describe and understand the teacher student relationship. Research indicates that the use of verbal and non-verbal immediacy behaviours by teachers facilitate students' affective learning. The present study analyses the relationship between teachers' use of different immediacy behaviours and teachers' effectiveness as a whole of mathematics teachers in secondary schools of West Bengal.

Theoretical Perspective of Teacher Immediacy

Immediacy is the way of communication that enhances the closeness to and mutual interaction between two people. It acts like a facilitator in interpersonal communication. Originally, Albert Mehrabian (1969) first introduced the immediacy concept in the communication research. He defines immediacy as a communication behaviour that “enhances closeness and nonverbal interaction with another” (p. 203). The root of immediacy concept is grounded in “Approach-avoidance model” and “Implicit communication theory.”

According to approach-avoidance model of teacher immediacy, “People approach things they like and that appeal to them, and avoid things that they dislike, do not appeal to them, or which induce fear”. Mehrabian (1971) mentioned that “People are drawn forward persons and things they like, evaluate highly, and prefer; they avoid to move away from things they dislike, evaluate negatively, or do not prefer. Immediacy behaviour are a kind of approach behaviour that creates liking and interpersonal closeness in human communication. Andersen, Andersen and Jensen (1979) defined the term as the “Approach behaviour which increases sensory stimulation and produces interpersonal communication.

The second theory is implicit communication theory. Communication may be two types: implicit and explicit. In explicit communication, messages tend to carry the content in a verbal form, but in implicit communication, messages carry emotions, feelings, or affection primarily in nonverbal form. According to Mehrabian (1981), “People rarely transmit implicitly (non verbally) the kinds of complex information that they can convey with words; rather, implicit communication deals primarily with the transmission of information about feelings and like-dislike or attitudes” (P. 3). Immediacy is a kind of implicit communication where the positive feelings and emotions transmit which create greater liking and positive outlook and decrease distance towards communicator. Andersen, Andersen, and Jensen (1979) defined the construct in three complementary ways: (i) as approach behaviour that communicates availability or attentiveness, (ii) behaviour that increases overall sensory stimulation, and (iii) behaviour that produces interpersonal closeness by reducing psychological distance.

We can find some key sentences to define the teacher effectiveness. Firstly, immediacy is a kind of implicit behaviour. Secondly, immediacy is also a kind of approach behaviour. Thirdly, immediacy behaviour produces greater liking, physical and psychological closeness, and reciprocal sensory stimulation. Fourthly, it decreases psychological distance, fear towards communicator. Therefore, in definition it may be summarized that: immediacy behaviour is such kind of implicit and approach behaviour that smoothen the communication by decreasing psychological and emotional barriers, and increasing a feeling of closeness and sensory stimulation.

Nonverbal form of immediacy

Initially, the study of immediacy began with Mehrabian’s (1969b) concept of nonverbal behaviors. Mehrabian (1969a, 1969b) categorized immediacy into five categories: touching, distance, leaning forward, eye contact, and body orientation. Later, Andersen, Andersen, and Jensen (1979) identified twelve nonverbal behaviours that comprise the immediacy construct. These are: (i) increase in touch, (ii) reduction of proximal distance, (iii) increase in eye contact and gazing, (iv) positive facial expression, (v) positive head nods, (vi) increase in gesture, (vii) bodily relaxation, (viii) use of purposeful body movements, (ix) spending time with other interactants, (x) informal dress, (xi) orientation of body and head towards the other interactants, (xii) vocal expressiveness.

Richmond (2002) defined nonverbal immediacy as those behaviours that improve and encourage interpersonal encounter and communication. He identified ten-nonverbal behaviours that may increase interpersonal closeness and proximity. These are: (i) Instructor’s appearance, (ii) Gesture and Movement, (iii) Facial Behaviour, (iv) Eye Behaviour, (v) Vocal Behaviour, (vi) Space, (vii) Touch, (viii) Environment, (ix) Scent, (x) Time.

Richmond, Gorham, and McCorskey (1987) mentioned eight type of behaviours that may increase closeness between two people. According to them immediacy behaviour are those behaviours that create physical and psychological closeness, and perceptual stimulation. They classified immediacy behaviours into major two heads: behaviours create physical and psychological proximity, and behaviours create perceptual stimulation.

Four behaviours fall under the first category. These are: Proximal position, face students directly, interpersonal touch, and direct eye contact. On the other hand, facial expression, bodily movements/gesture, body posture, and vocal behaviour, these four behaviours fall under the perceptual stimulation head.

Review of related literature

After Mehrabian (1971) first introduced the concept of immediacy in the field of communication research, some researchers intended to study the factor in the field of teaching-learning situation.

Andersen (1979) perhaps is the early researcher who has attempted to measure teacher immediacy. Andersen and his colleagues introduced the instruments for measuring the construct. Anderson (1979) also examined teacher immediacy as a potential predictor of teaching effectiveness. Result of his study indicated that in a multiple regression model, teacher immediacy successfully predicted student affect towards the course instructor and the course content. Immediacy also predicted student behavioural commitment and cognitive learning. The study produced significant relationship between specific and generalized teacher immediacy and teaching effectiveness.

Richmond, Gorham and McCroskey (1987) investigated the relationship between selected immediacy behaviours of the teachers and cognitive learning of the students. They concluded that immediacy behaviours are substantially associated with cognitive learning.

Gorham (1988) identified a set of verbal teacher immediacy behaviours which can increase students' learning. The study indicated that differentiated use of various types of verbal immediacy message between small and larger classes, and that the impact of teacher immediacy behaviours (both verbal and nonverbal) on learning coincidentally enhanced as class size increased.

Following the Anderson's way, Cristophel (1990) investigated the relationship between teacher immediacy and student state motivation and the combined impact of these factors on learning. He concluded that immediacy appears to modify motivation which leads to increased learning.

Similarly, Frymier and Houser (2000) examined the relationship between students' perception of teachers' use of communication skills, immediacy behaviours, motivation and learning. They found a strong positive relationship among the variables.

Velez and Cano (2008) examined the relationship between teacher immediacy and student motivation. Result indicated immediacy does have an association with motivation, specially nonverbal with expectancy value.

Özmen (2011) studied on the perception of nonverbal immediacy behaviour and its relation to effective teaching among student teachers of English language teaching (ELT) programs. The study revealed that teacher nonverbal immediacy behaviour has a significant positive impact on teaching effectiveness.

From the review of literature, it can be found that teacher immediacy behaviour is strongly associated with students' learning. However, the relation is not direct for all type of learning. The association between teacher immediacy and cognitive learning is mediated by students' state motivation and affective learning. The review of literature also revealed that teacher immediacy behaviour has an impact on teachers' effectiveness. The previous research that focused the impact of teacher immediacy behaviour on teacher effectiveness, conceptualised teacher effectiveness as teachers' ability to produce students' learning. Thus in the previous research, teacher effectiveness has been studied by assessing the students' cognitive and affective learning. Therefore, what contribution teachers immediacy behaviour have in overall teacher effectiveness, is an uncovered area of research. Moreover, the available studies on teacher immediacy construct is primarily conducted in foreign countries. There is a lack of research on the construct in Indian perspective.

Research Questions

From the review of related literature, two major research questions arise:

- (i) Does the teacher nonverbal immediacy behaviour differ for male and female teachers?
- (ii) Does the teacher nonverbal immediacy behaviour significantly influence teachers' effectiveness?

Hypotheses

To investigate the answer of the research questions two hypotheses was formulated.

H₀1: There is no significant difference between male and female mathematics teachers in their immediacy behaviours.

H₀2: There is no significant impact of teacher immediacy behaviour on mathematics teachers' effectiveness.

Sample

For the study, 120 mathematics teachers were selected randomly from secondary schools of West Bengal. Data were collected from 10th graded students of these 120 teachers. At least 10 students were selected from each of 120 classes. All total 1303 students were participated in the research.

Tools for Data Collection:

For collecting the necessary data, following tools have been used:

1. For measuring the patterns of teacher nonverbal immediacy behaviour, "Nonverbal Immediacy Behaviour Scale is used.
2. For measuring effectiveness of mathematics teachers, self-constructed Teacher Effectiveness Scale has been used.

Both the tools are developed and standardized by the researchers.

Procedures for analysis of data

For analysing the data, four statistical procedures were used.

- (i) Pearson coefficient of correlation was used to assess the association between the teacher nonverbal immediacy behaviour scores and teacher effectiveness scores.
- (ii) Eta Squared (η^2) was used to estimate the effect of independent variable on the dependent variable.
- (iii) t- test was used to study the significant difference between the two means.
- (iv) Univariate ANOVA Test was used to study the significant difference of effectiveness for group of teachers with different level of immediacy.

Analysis of data

Collected data were analysed keeping in view the hypothesis of th study. Necessary statistical procedures were applied to test the null hypothesis.

1. Null-hypothesis 1

H₀1: There is no significant difference between male and female mathematics teachers in their immediacy behaviours.

To test this hypothesis t-test of significant difference between means of male and female teachers has been used.

Table 1: t-test of significant difference between the means of male and female teachers in their nonverbal immediacy behaviors.

Sex of Teachers	N	Mean	S.D.	Difference Between Mean	t- value	Remarks
Male	66	85.00	7.06	0.70	0.59	N.S. at .05 level of significance
Female	54	84.30	5.64			

The table 1 indicates that t-value for difference between the means of Male and Female Teachers on Teacher Non-verbal Immediacy Behaviours are not significant. Hence, the null hypothesis H_01 : “There is no significant difference between male and female mathematics teachers in their immediacy behaviours” is accepted. It can be concluded that the male and female Mathematics teachers do not differ in their nonverbal immediacy behaviours.

2. Null-hypothesis 2

H_02 : There is no significant impact of teacher immediacy behaviour on mathematics teachers’ effectiveness.

To test the hypothesis, H_02 : “There is no significant impact of teacher immediacy behaviour on mathematics teachers’ effectiveness” three types of statistical evidences were collected. (1) Bi-variate Correlation Analysis for studying the association between the two variables, (2) Univariate ANOVA test for studying the overall effect of teacher immediacy behaviour on teacher effectiveness, and (3) Regression coefficient for studying the effect of each part of the immediacy behaviour on teacher effectiveness.

1. Bi-variate Correlation analysis between Teacher Nonverbal Immediacy Behaviour and Teacher Effectiveness

Table 2: Association between Teacher Nonverbal Immediacy Behaviour and Teacher Effectiveness

Correlations		
Dimensions of Teacher Immediacy Behaviour	Teacher Effectiveness	
	Pearson r	R ²
Teacher Nonverbal Immediacy Behaviour	.515**	.27

** . Correlation is significant at the 0.01 level (2-tailed).
N = 120

It is evident from the table 2 that there is a positive associations between mathematics teachers’ use of non-verbal immediacy behaviour and teacher effectiveness, $r = .515$. The R-square value is .27, which indicates that teacher nonverbal immediacy behaviour accounts for almost 27% variance in teacher effectiveness.

2. Univariate ANOVA test for level of mathematics Teachers’ use of Non-verbal Immediacy Behaviour and Teacher Effectiveness

Table 3: ANOVA test and Effect Size of mathematics teachers’ use of non-verbal immediacy behaviour on teacher effectiveness

ANOVA					
Teacher Effectiveness					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	13906.325	2	6953.163	17.837	.000
Within Groups	45607.744	117	389.810		
Total	59514.069	119			

Eta² or $\eta^2 = .23$

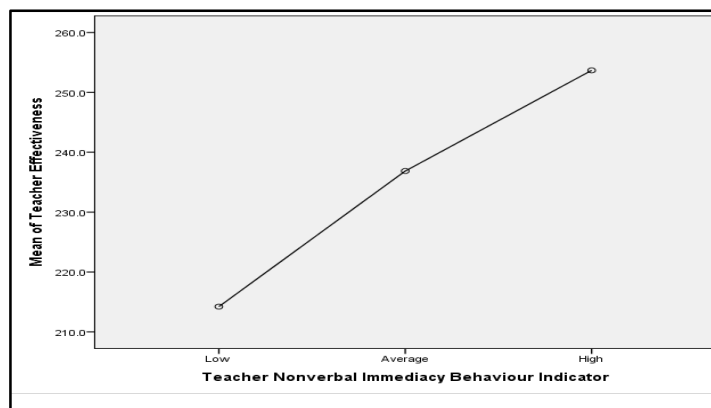


Fig 1: Impact of Teacher Non-verbal Immediacy Behaviour on Teacher Effectiveness

Fig 1 showing the impact of mathematics teachers' use of non-verbal immediacy behaviour on teacher effectiveness indicates that when teacher nonverbal immediacy behaviour increases, teacher effectiveness increases proportionately. The ANOVA table (table 3) indicates about the overall effect of mathematics teachers' use of non-verbal immediacy behaviour on teacher effectiveness. Here the F-ratio (17.84) is significant ($P < 0.05$), which indicates that mathematics teachers' effectiveness differs significantly for three groups of teachers: using high, moderate and low level of immediacy behaviour. Moreover the effect sizes ($\eta^2 = .23$) indicate a significant large size effect of mathematics teachers' use of non-verbal immediacy behaviour on teacher effectiveness.

3. Regression Coefficient for mathematics teachers' use of immediacy behaviour and teacher effectiveness

Table 3 Regression Coefficient for mathematics teachers' use of immediacy behaviour and teacher effectiveness

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	Teacher Nonverbal Immediacy Behaviour	1.344	.276	.387	4.876	.000

a. Dependent Variable: Teacher Effectiveness

The Regression Analysis shows that non-verbal immediacy behaviour can successfully predict the teacher effectiveness scores, $t = 4.876$, $P = .000$. The unstandardized Beta-value (presented in table 4) for Teacher Nonverbal Immediacy Behaviour is 1.34. This value indicates that as Teacher Nonverbal Immediacy Behaviour increases one unit, teacher effectiveness will increase 1.34 units. The t-statistics associated with b- values are significant ($p < .05$). Therefore, we can say that Teacher Nonverbal Immediacy Behaviour can successfully predict teacher effectiveness score. The standardized beta weighting reveals the teacher nonverbal immediacy behaviour ($\beta = .387$) has strong effect on teacher effectiveness.

From the above results, it can be concluded that teacher nonverbal immediacy behaviour has a significant impact on teacher effectiveness. Hence the null hypothesis H_0 : "There is no significant impact of teacher immediacy behaviour on mathematics teachers' effectiveness" cannot be accepted.

Discussion of the results

Previous researches on teacher immediacy behaviour indicate that teacher nonverbal immediacy behaviour has a significant impact on teacher effectiveness. Richmond, Gorham and McCroskey (1987), Mottet et al. (2008) have found positive relationship between teacher nonverbal immediacy behaviour and students' cognitive and affective outcomes. Andersen (1979) mentioned that teacher nonverbal immediacy behaviour was positively correlated with teaching effectiveness, and it accounts for 46% variance in student affect toward the course instructor and about 20% of the variance in student affect towards the course content. Similarly, Özmen (2011) established that nonverbal immediacy behaviour as an indispensable part of effective teaching.

It is evident from the present study that teacher nonverbal immediacy behaviour not only has a positive association with teacher effectiveness, but also account for almost 27% variance in the teacher effectiveness. Moreover, the effect size eta squared value indicates that teacher nonverbal immediacy behaviour has a significant effect on teacher effectiveness.

Conclusion:

The relationship between teacher immediacy behaviour and students' cognitive and affective learning has been studied in details over the past decades. The present study supports these research findings. It can be concluded that the nonverbal immediacy behaviour is more important than the gesture, proper touch, eye contact, facial expression, distance and closeness between students and the teachers, matters much for students' learning, and these behaviours are one of the key elements for increasing teacher effectiveness.

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Analysis on an English Textbook for Grade 7: Focus on Compliance to the K-12 Grade Level Standards and Competencies

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Abstract

This analysis is aimed at evaluating the current English learning material used in Ibn Siena Integrated School Foundation. Since textbook evaluation has become an important tool in searching for an effective learning material, this paper sets the goal of providing answers to the presented research objectives such that it highlights the use of the learning objectives indicated in K-12 Curriculum Guide. The researchers identify the consistency of the content of the textbook analyzed in terms of the learning objectives provided in the k-12 Curriculum Guide. Lastly, results suggest that there should be an equal distribution of activities of the given skills. Among the skills, writing has the most number of inconsistencies as far as the K-12 Curriculum Guide is a concern. Moreover, the authors of this textbook (English Communication Arts and Skills 7) should be able to continue working on more editions of the book so as to produce more effective and practical learning materials.

Keywords: English Textbook, Compliance, K-12 Curriculum, Level Standards, Competencies

Introduction

Textbooks have always been integral to education, particularly in teaching and learning. They serve as frameworks for what ought to be taught and how it is to be taught. Textbooks reflect the program in the curriculum. They serve as guides or roadmaps for teachers, especially those who are new in the teaching profession.

Although the internet provides an ocean of information and it is indeed true that almost everything can be googled, its integrity sometimes is not as consistent as it is hoped to be. This is the very reason why textbooks have always been worthy choices in terms of dependability. They are sources of knowledge which are easiest to obtain (Rahmawati 2018).

The researchers chose to evaluate a Grade 7 Philippine English textbook since it is the inherent responsibility of a teacher to continue searching for effective textbooks that are not only appropriate to the learners but are also relevant in their learning development. Thus, as part of the national objectives of the Philippines, a new curriculum has been introduced to enhance and develop the educational system of the nation.

In the school year 2012-2013, the K-12 was finally implemented. However, many textbooks produced claimed compliance of K-12 Curriculum Guide. It is for this reason that the researchers opted to evaluate whether this

textbook (ECAS 7) adheres to the learning objectives of K-12 Curriculum Guide. Moreover, since this book deals with the English language, the researchers included the evaluation of activities in terms of language skills such as reading, writing, speaking, and listening. The researchers aimed at finding out whether the said activities are equally divided and whether their contents are relevant to the learners' needs and interests.

Faustino, et al. (2013) highlighted that the contribution of English learning in the Philippine educational system has led to the development and improvement of the English textbooks used in the country. More of these textbooks have undergone numerous revisions and new editions solely for the purpose of making them effective sources of knowledge. In addition to the recent changes of the curriculum, the K-12 Program requires all textbooks to be aligned to its goals. Consequently, there have been significant reforms in the Philippine educational system in recent years. The implications of the implementation of the new system led to the changes in curriculum and changes in the instructional materials to support the new curriculum. The emphasis was towards the textbooks to be used.

Vedyanto (2017) clearly argued that a teacher who does not have sufficient knowledge of the features of the English Language Teaching (ELT) textbooks might end up with the wrong choices. For example, ELT textbooks which do not contain materials that suit the levels of the students' knowledge and skills, might lead to a confusing learning system among them. This argument was reinforced through Yamanaka (2006) talked about this pandemonium in the learning process. In order to avoid the improper use of ELT textbooks while instructional and learning activities last, Vedyanto concluded that a superfine decision should be made in advance and that evaluation is acceptable to take to ascertain that the decision made does not go wrong.

In ELT textbook evaluation, Tomlinson (2011) revealed that the materials are measured. They added that a set of criteria is being used to evaluate these textbooks. He directed emphasis on providing a checklist. The checklist evaluation yields a great recommendation. Cunningsworth (1995) offered a quick-reference checklist for evaluation and selection. It comprised the criteria of aims and approaches, design and organization, language content, skills, topic, methodology, teacher's books, and practical considerations. These points of evaluation made ELT textbooks very attractive to researchers.

With the premise that curriculum should be supported with different instructional materials, Mahmood, et al. (2009) mentioned that a textbook is considered one of the most common instructional materials that teachers usually use. In the educational reform, the textbook is the revised tool in the process of reformation. John (2001) as cited by Faustino, et al. (2013) also claimed that most teachers used textbooks as their principal curriculum guide and source of lessons. Tyson (1997) as cited by Faustino, et al. (2013) added that those teachers who are beginners in the teaching profession, especially those who do not have enough time to prepare lesson plans, might use "religiously" the textbook from cover to cover.

Mahmood, et al. (2009) concluded that textbooks become a portion of the educational system, particularly in developing countries wherein textbooks are the only available learning materials in most schools.

Schader, et al. (2008) suggested standards that make sure of a quality textbook. They believed that educators should look into the following:

- 1) the formal aspects, design, etc., includes the compatibility of the textbook to the curriculum, design, presentation, transparency, and illustration. The evaluation of the textbook is based on the alignment with the principles of the curriculum, the nature of the subject and the level of the students.
- 2) methodological-didactical aspects cover quality with regards to the contents and subject matter, relevance and topicality, age-appropriateness, didactic approaches, and question and task instructions.
- 3) pedagogical aspects whose focus fall on the established relations to social, historical, and political reality, relation to aspects of education maturity/autonomy, education for democracy and peace, relation to gender aspect, and relation to important additional pedagogical concerns;
- 4) aspects related to practice include commentary/assistance for teachers and manageability, additional materials for the textbook and tried and tested in practice; and

5) additional subject-specific standards. These standards can be helpful for educators in evaluating the textbooks that they are planning to use or that they are presently using.

In the Philippines, the NBDB or the National Book Development Board is the agency that is assigned to review textbooks under textbook review service. It has the mandate to: firstly, formulate, adopt, and implement the National Book Policy and the National Book Development Plan; and secondly, to provide capability-building services for the agency's stakeholders, such as publishers, authors, printers, and other publishing entities that will need its support. Included in the policy are:

- 1) coverage of learning competencies;
- 2) the accuracy of content (i.e., conceptual, factual, pedagogical, grammatical, etc.);
- 3) appropriateness of presentation, language, and visuals to target users, to society, and to culture; and
- 4) grammatically correct use of language that can be understood easily by target users.

Meanwhile, the Department of Education (2004) developed a manual of textbook style and standard to ensure quality textbook in the Philippines. The manual includes:

- 1) general and technical standards (size, paper stock, preferred bidding);
- 2) cover specification (use of logos, font, font size, general layout, qualifiers); and
- 3) printing specifications (font types and size, suitable per grade level).

This textbook analysis focuses on The New Grade 7 English Communication Arts and Skills 7th edition by Milagros G. Lapid and Josephine B. Serrano. Primarily it seeks to evaluate its compliance with the K-12 level standards and competencies.

Research Objectives

This textbook analysis has the following research objectives:

- 1) To evaluate the aforementioned textbook in the light of its contents whether or not it contains or reflects the learning goals of the k-12 Program based on the English 7 Curriculum Guide;
- 2) To assess whether this textbook has an equally distributed activity on the four major skills that entail good English skill and;
- 3) To appraise whether the contents of this textbook is relevant to the learner's interests and need.

Methodology

Both qualitative and quantitative method was used for analyzing and evaluating the data. This section discusses design and instrument used in the study.

Design

The textbook under study is currently being used by a known private school in Marawi City, Lanao del Sur, Philippines. The textbook itself is entitled: The New Grade 7 English Communication Arts and Skills, published and distributed by the Phoenix Publishing House, Inc. situated at 927 Quezon Avenue, 1104 Quezon City. It contains 348 pages and has four major units. Each of these units has six lessons except for lesson unit two. In its cover, it depicts the map of the Philippines hence the book reflects the unfolding of Philippine history.

Instruments

Checklists and a Curriculum Guide were used as the main instruments of the study. McGrath (2002) also cited by Gul Fatima, et al. (2015) explains the checklist method, where essential criteria are listed and systematically checked off. Other methods are the impressionistic and in-depth method which means that materials are chosen for a thorough examination. The K-12 curriculum guide was used as a tool in checking whether the book being analyzed was consistent as to the learning objectives of the K-12. This analysis has three levels:

Level 1: Impressionistic evaluation involves an overall presentation and analysis of the textbook related to its design, table of contents, distribution of units, lessons and sections in the book.

Level 2: In-depth evaluation examines separately and more analytically the treatment of the different skills, reading, listening, writing, and speaking and the ways of assessment practices through the book.

Level 3: Consistency and compliance with the English 7 curriculum guide's learning objectives examine the quality of the textbook in terms of responding to learners' needs.

Results and Discussions

Level 1. Impressionistic and Level 2. In-depth Evaluation

Table 1. *Quantitative Checklist (The New Grade 7 English Communication Arts and Skills through Philippine Literature)*

Impressionistic View	Total
Units in the book	4
No. of Exercises/Tasks in the book	237
Values Connection	14
Lessons Per Unit	6
Cultural Units	22
In-Depth View	Total Activities
Activities for Listening Skills	8
Activities for Speaking Skills	37
Activities for Reading Skills	24
Activities for Writing Skills	43
Activities for Vocabulary	21
Activities for Grammar	68

The in-depth analysis of the textbook shows that there are more activities on writing skills followed by the speaking skills. All lessons have included grammar activities. Furthermore, topics are separated into four units and under each unit are lessons numbered from 1-6 except unit two which only has five lessons. McGrath (2002) as cited by Gul Fatima, et al. (2015) explains the checklist method, where essential criteria are listed and systematically checked off. Other methods are the impressionistic and in-depth method which means that materials are chosen for a thorough examination. He posited the very idea of evaluation which is judgment-making thus also means that evaluation is subjective.

Level 3. Consistency/compliance with the English 7 curriculum guide's learning objectives examines the quality of the textbook in terms of responding to learners' needs.

Listening skill is one of the four macro skills of the English language. English Communication Arts and Skill 7 includes lessons and activities that develop the various language and listening skills of the learners. Different purposes of listening activities are included in Table 2.

Table 2. Activities for listening skills

Title	Types of Listening Activities	Page No.
Introduction to the Philippines	Listening for Specific Information	5-6
The Monkey and The Turtle	Listening to Appreciate the Plot, Characterization, and Theme	72-74
English-Language Radio Program	Listening to Extract Information and Noting Details	153-154
How to make a Polvoron	Listening for Noting Steps in a Process	195-196

Analysis of Speaking Skill

English Communication Arts and Skills 7 has the following activities of Speaking Skill.

Table 3. Categories of Speaking Activity

Categories	Frequency	Page no.
Introducing One's Self	1	6-15
Pronouncing Words with Correct Syllable Stress	1	38-39
Interview	1	60
Intonation Patterns	2	89-90
Producing Critical Vowel Sounds	2	109-110
Avoiding Possible Misinterpretation	1	130
Discussions (Agreeing or Disagreeing)	2	154, 155
Producing Sounds /a/ and /a/	2	237
Reading Words with Silent Letters	1	290

Table 3 shows various speaking activities as illustrated in the book. It is primarily aimed to develop and enhance the learner's speaking skills in different speaking situations. The intonation patterns, producing sounds and discussions have much frequency than the others. All the rest have the same frequency or less activity.

Analysis of Reading Skill

Different Activities for reading are given in the table.

Table 4. Categories of Reading Activity

Categories	Frequency	Page No.
Literary Text	5	34-37,61-66, 103-107, 181-184, 293-300
Narrative	1	44-49
Explanation	1	157

There are more reading activities for literary text. Comprehension questions are given to analyze the reading ability of the learners.

Table 5. Activity for each lesson

Types of Reading Activities for each lesson	Purpose of Activity
Reading Comprehension Questions	Reading for information/ideas
	Reading for details
	Reading for meaning

Analysis for Writing Skills

Categories of Writing Skills are shown in the table below.

Table 6. *Categories of Writing Skills*

Categories	Frequency	Page No.
Letters	1	166-177
Completing Colloquial Terms	1	9
Recognizing, and Revising Paragraphs	2	116-118, 311-312
Writing Reaction Paper	1	186

Activities on Recognizing and Revising Paragraphs have more activities compared with the rest of the categories. The aim of recognizing and revising paragraphs is to develop writing skill. It is established to paraphrase texts using the learners' own understanding of what they have grasped in the given activities on paragraphs.

Analysis for Grammar Activities

All Lessons have grammar points. Thus in this analysis, there is no table for grammar analysis since it is understood to have been included in each lesson.

Analysis of Vocabulary Activities

The activities under vocabulary are shown in the table below.

Table 7. *Categories for Vocabulary Activities*

Categories	Page No.
Synonyms and Antonyms	67, 149-150
Using Dictionary	158-159,236-237
Sentence Completion	244-245

There are more activities pertaining to the use of a dictionary and less on sentence completion.

Table 8. *Reading Skills as reflected in the Curriculum Guides' learning objectives*

Learning Objectives	Observed	Not Observed
Use the appropriate reading style (scanning, skimming, speed reading, intensive reading, etc.) for one's purpose		
Skim for major ideas using headings as a guide		
Read intensively to find the answer to specific questions.		
Use non-linear visuals as comprehensive aids in content texts.		
Transcode orally and in writing information presented in diagrams, charts, table, graphs, etc.		
Give the meaning of given signs and symbols (road signs, prohibited signs, etc.)		
Follow directions using a map.		
Use appropriate mechanisms/tools in the library for locating resources.		
Use the card catalog, the online public access catalog, or electronic search engine to locate.		
Get information from the different parts of a book and from general references in the library.		
Gather current information from newspaper and other print and non-print media.		
Use one's schema to understand a text better.		
Use one's schema as the basis for conjectures made about a text.		
Use the universe of the text to activate one's schema.		
Make predictions about the text.		
Identify the author's intentions for writing.		
Distinguish fact from opinion, fantasy from reality in the text.		
React to assertions made by the author in the text.		

Classify text types (narrative, expository, explanation, recount, persuasive)		
Use appropriate reading strategies for various text types.		
Make generalizations from different text types.		
Distinguish between general and specific statements.		
Sequence/reorganize ideas or information.		
Sequence steps in a process.		
Cite evidence to support a general statement.		
Organize information read into an outline		
Narrate events.		

Table 8 shows that there are 27 Reading Skill learning objectives indicated in the k-12 Curriculum Guide. Out of the 27, there are 4 learning objectives that the book missed to establish consistency as to content, these are: 1. To gather current information from newspaper and other print and non-print media 2. To classify text types (narrative, expository, explanation, recount, persuasive) 3. To distinguish between general and specific statements and 4. To cite evidence to support a general statement.

Table 9. Listening Skills as reflected in the Curriculum Guides' learning objectives

Learning Objectives	Observed	Not Observed
Recognize prosodic features: volume, projection, pitch, stress, intonation, juncture, and speech rate that serve as carriers of meaning.		
Listen for important points signaled by volume, projection, pitch, stress, intonation, juncture, and rate of speech.		
Note the changes in volume, projection, pitch, stress, intonation, juncture, and rate of speech that affect meaning.		
Use listening strategies based on purpose, familiarity with the topic, and levels of difficulty of short texts listened to.		
Extract information from the text listened.		
Recognize main/key ideas.		
Note specific details/elements of the text listened to.		
Recognize signals/cues to determine the order of ideas/events.		
Determine the tone and mood of the speaker or characters in the narrative listened to.		
Infer the purpose of the text listened to.		
Make predictions about the contents of the texts listened to.		
Infer thoughts and feelings expressed in the text listened to.		
Use different learning strategies based on purpose, topic, and levels of difficulty of simple informative and short narrative events.		
Note specific details listened to.		
Recognize the main points and supporting ideas in the text listened to.		
Determine the order of ideas as signaled by cues.		
Follow steps in the process.		
Sequence, a series of events in the text, listened to.		
Identify the persons speaking and addressed, and the stand of the speaker based on the explicit statements made.		
Formulate predictions about the contents of the text.		
Process information mentioned in the text listened to.		
Determine the intentions of speakers by focusing on their unique verbal and non-verbal cues.		
Predict the outcomes of a verbal exchange listened to and their possible effects on the speakers.		
Sequence, a series of events mentioned in the text, listened to.		
Make simple inferences about thoughts and feelings expressed in the text listened to.		
Determine the worth of ideas mentioned in the text listened to.		
Express appreciation for entertaining texts (anecdotes, jokes, fables, myths, tales) by recognizing the punch lines.		

Table 9 shows that there are 27 Listening Skill learning objectives indicated in the k-12 Curriculum Guide. Out of the 27, there are 5 learning objectives that the book missed to establish consistency as to content, and these are: 1. To use different learning strategies based on purpose, topic, and levels of difficulty of simple informative and short narrative events 2. To identify the persons are speaking and addressed, and the stand of the speaker based on the explicit statements made 3. To formulate predictions about the contents of the text 4. To determine the intentions of speakers by focusing on their unique verbal and non-verbal cues and 5. To predict the outcomes of a verbal exchange listened to and their possible effects on the speakers. Ahmed, et al. (2015) explained that listening skill contributed to both speaking and grammatical performance. This further implies that a learner who is good in listening skill will likely to perform well in speaking and grammar activities.

Table 10. *Writing and Composition Skills as reflected in the Curriculum Guides' learning objectives*

Learning Objectives	Observed	Not Observed
Distinguish between oral and written language use.		
Recognize the common purposes for writing.		
Identify the basic features and kinds of the paragraph.		
Recognize the parts of a simple paragraph.		
Sequence steps in writing a simple paragraph.		
Retell a chosen myth or legend in a series of a simple paragraph.		
Extract information from a text, using a summary, précis, and paraphrase.		
Identify key ideas.		
Identify supporting details.		
Simplify ideas.		
Compose simple narrative texts.		
Identify the features of narrative writing.		
Compose personal and factual recounts.		
Compose a series of journal entries.		
Compose an anecdote based on a significant personal experience.		
Compose a travelogue.		
Compose a personal letter to a friend, relative, and other people.		
Compose simple, informative texts.		
Identify the features of personal essays.		
Distinguish between and among a capsule biography, biographical sketch, and feature article.		
Organize information about a chosen subject using a graphic organizer.		
Organize information about a chosen subject using a one-step topic outline.		
Compose a capsule biography of a person interviewed.		
Compose a biographical sketch based on a personal interview and background research.		

Table 10 shows that there are 24 Writing Skill learning objectives indicated in the k-12 Curriculum Guide. Only 10 of the learning objectives the researchers see consistent as to the content of the book. They are 1. To distinguish between oral and written language use 2. To identify basic features and kinds of paragraph 3. To recognize the parts of a simple paragraph 4. To sequence steps in writing a simple paragraph 5. To extract information from a text, using a summary, précis, and paraphrase 6. To compose a personal letter to a friend, relative, and other people 7. To identify features of personal essays 8. To organize information about a chosen subject using a graphic organizer and 9. To compose a biographical sketch based on a personal interview and background research.

Table 11. *Oral/Speaking Skills as reflected in the Curriculum Guides' learning objectives*

Learning Objectives	Observed	Not Observed
Observe the production of vowel and consonant sounds, diphthongs, blends, glides, etc.		
Read words, phrases, clauses, sentences, and paragraphs using the correct production of vowel and consonant		

sounds, diphthongs, blends, and glides.		
Use appropriate prosodic features of speech like pitch, stress, juncture, intonation, volume and projection and rate/speed of speech in differing oral communication situations.		
Observe the correct pitch levels (high, medium, low) when reading lines of poetry, sample sentences, and paragraphs.		
Use the correct stress (primary, secondary, tertiary, and weak) when reading passages.		
Use the rising intonation pattern with Yes-No and tag questions; the rising-falling intonation-seeking questions, option questions and with statements.		
Observe and use correct juncture/phrasing and rate of speech when reading sample passages (prose or poetry).		
Use verbal and nonverbal cues in conversations, dialogs, and interviews.		
Use appropriate verbal and nonverbal cues when developing, maintaining and ending conversations and dialogs.		
Employ correct turn-taking, turn-giving and topic control strategies in conversations and dialogs.		
Use appropriate techniques and strategies when asking questions and eliciting answers.		
Observe and use the appropriate gestures (hand-body) that accompany oral language.		
Use the correct pitch, juncture, stress, volume and projection and rate/speed of speech in conversations and dialogs.		
Express ideas, opinions, feelings and emotions during interviews, group/panel discussions, forums/for a, debates, etc.		
Use the appropriate prosodic features of speech during interviews, discussions, and forums.		
Employ the appropriate oral language and stance in an interview, a panel discussion, in a forum and in a debate.		
Express ideas and opinions based on text listened to.		
Raise sensible, challenging thought-provoking questions in public forums/panel discussions, etc.		
Observe and use the appropriate oral language, stance, and behavior when giving information, instructions, making explanations, and narrating events in factual and personal recounts.		
Give clear precise and concise information, explanations and instructions in varied oral communication situations.		
Orally narrate events in factual and personal recounts using appropriate verbal and non-verbal cues.		
Use correct and appropriate multi-media resources when orally giving information, instructions, making explanations and narrating events in personal or factual recounts.		
Use correct and appropriate prosodic features of speech when giving information, instructions, making explanations and narrating events in personal or factual recounts.		

Table 11 shows that out of 23 Oral/Speaking Skill learning objectives indicated in the k-12 Curriculum Guide, five (5) learning objectives missed to establish consistency as to the content of the book. They are: 1. To employ correct turn-taking, turn-giving and topic control strategies in conversations and dialogs 2. To use appropriate techniques and strategies when asking questions and eliciting answers 3. To observe and use the appropriate gestures (hand-body) that accompany oral language 4. To raise sensible, challenging thought-provoking questions in public forums/panel discussions, etc. and 5. To observe and use the appropriate oral language, stance and behavior when giving information, instructions, making explanations, and narrating events in factual and personal recounts.

Qualitative Analysis of the textbook (ECAS 7)

Table12. *The analysis shows that most of the features or characteristics of these chosen textbooks are falling in the "Average" category providing that this textbook provides the learners' needs.*

Legend: The check mark signifies that a particular category corresponds to the learners' needs.

	Needs Improvement	Average	Above Average
Are the contents and activities of the curriculum fit the age of the students?			
Is the length of the lessons and activities appropriate?			
Does it enhance the learner's creative skills?			
Are the goals of this book realistic, clear and explicitly stated?			
Is the layout of the book attractive?			
Is there a checklist /rubrics at the end of the units to ensure achievements?			
Would learners able to apply the skills they learned from the book?			
Are the contents / lessons current, relevant, and accurate?			
Are the contents appropriate for the target cultural group?			
Is it organized into learning units?			

Is it organized from simple to complex according to the level and interest of students?			
Are the reading, writing, listening, and speaking well balanced in the book?			
Does it provide opportunities for task-based learning?			
Is the linguistic input (idioms, expressions, slangs, etc.) dense?			
Are the learning activities qualitatively excellent?			

Pervesen (2011) as cited by Gul Fatima, et al. (2015) conducted her study to evaluate the curriculum at the primary level in the light of education policies and plans in Pakistan. She explained the objectives of the curriculum at the primary level and analyzed different education policies and plans regarding the achievement of objectives. Since the researchers had been using the book for quite a few years, she had also evaluated the textbook on the basis of the learners' needs. Fredriksson and Olsson (2006) explained that one of the most relevant criteria is if the book is interesting so that students can relate to and do not feel boredom in the process of learning. Similarly changing and engaging texts are both relevant for teachers and students.

Conclusions and Recommendations

Based on the result of this analysis, the researchers have drawn some conclusions. First, since textbooks have become the primary source of lessons among teachers, it is indeed vital to consider the learning standards and competencies required in the existing curriculum guide. This implies that a teacher must not go away with what is in the learning objectives however he should not sacrifice creativity and resourcefulness for better learning. Second, writers and authors should continue writing new editions specially to cope with the latest trends in education. This further means that constant evaluation of the textbook must be done to ensure that it is effective and suitable to its target learners. Lastly, teachers themselves must evaluate the textbooks they are using so that they would be able to identify which textbook is for a particular group of learners.

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Demographic Variables and English Proficiency of Adult Language Learners: A Correlational Study

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Abstract

This study examined the influence of demographic variables on adult language learners' English proficiency development. Specifically, it tried to ascertain the level of English proficiency of the respondents when grouped according to demographic variables such as gender, age, civil status, length of work experience, highest educational attainment, specialization, and designation. It also tried to find out if there are significant differences in the respondents' level of proficiency in the four macro-linguistic skills and if there are significant correlations between the respondents' English proficiency and the identified demographic variables. Using descriptive-correlational research design with academic professionals working in a higher education institution in the Philippines as respondents, this study found that the respondents have intermediate level of English proficiency (B1, CEFR), lower than what is expected from academicians in a higher learning institution. Findings further reveal that there are significant differences in the respondents' level of proficiency in the identified macro-linguistic skills and that age, educational attainment, and length of service are positively correlated with English proficiency, while gender, civil status, specialization, and designation are negatively correlated with the same. Implications of the findings are discussed in relation to curriculum development, language teaching and assessment, and language policy and planning.

Keywords: English Proficiency, Demographic Variables, Second Language Learning, Adult Language Learners

1.0 Introduction

English is the language of progress and power. It is used to expand business and trade, advance scientific innovations, develop new technologies, disseminate new knowledge, and empower people from all walks of life (Lazaro & Medalla, 2004). As a tool for globalization and diplomacy (Pasi, 2007), it influences the world economy, human security, international relations, and development policies. As the medium of communication for all types of international exchange – goods, service, and ideas, it fosters common understanding and human values (EF Education First, 2018). As the lingua franca in civic, political, and corporate organizations, it increases one's position, respectability, and marketability (Espinosa, 1997). Used as the dominant medium of instruction in education, it allows efficient knowledge development, resource sharing, and empowerment (Dearden, 2014). Indeed, English plays important roles in linking people, in improving the quality of life, and in transforming nations (International Consultants for Education and Fairs [ICEF], 2014).

Considering the major role of English in all facets of life, it is important that one has the required proficiency of the language. According to EF Education First (2018), English skills open limitless economic opportunities for

an individual. In its 8th English Proficiency Index (EF EPI) report, it revealed that there are correlations between English proficiency, higher incomes, greater connectivity, and innovation (EF Education First, 2018). In the Philippines, English proficiency provides competitive edge on career prospects among graduates and economic competitiveness for the whole country. Filipinos who have high English proficiency easily get hired locally and abroad. With 70 percent of its population being able to speak English (Hernandez, 2015), the country is also the preference of foreign investors for business process outsourcing (BPO). In recent decades, the country has benefited economically from its human capital's proficiency in the English language.

To a certain extent, English proficiency influences the Philippine's economy. It is therefore important that Filipinos are highly proficient with the English language. However, getting highly proficient is perceived to be long and difficult process, influenced and controlled by various internal and external factors (Nallaya, 2012). In the case of Filipino adult language learners who make up the country's labor force, what are these factors? This study aimed to examine the factors or variables influencing adult language learners' (ALL) English proficiency development. Specifically, it tried to answer the following specific questions: 1) What is the level of English proficiency of the respondents when they are grouped according to demographic variables such as gender, age, civil status, length of work experience, highest educational attainment, specialization, and designation?; 2) Are there significant differences in the respondents' level of proficiency in the identified macro-linguistic skills?; and 3) Is there a significant correlation between the respondents' English proficiency and their age, gender, civil status, length of service, educational attainment, specialization, and designation?

The current study was also guided by the following hypotheses:

1. There are no significant differences in the respondents' level of proficiency in the identified macro-linguistic skills.
2. There are no significant correlations between the respondents' English proficiency and their age, gender, civil status, length of service, educational attainment, specialization, and designation.

Investigating the correlations between English proficiency and demographic variables (factors) is useful in understanding language learners, curriculum development and design, language assessment, and language policy and planning. This study is useful to teachers and curriculum developers as this provides them insights that can help them design engaging activities and materials that suit the nature and level of adult language learners. It is also valuable to test developers as results can reveal some points to consider in designing appropriate language assessment tools. Lastly, it is beneficial to school leaders and decision makers as results can help them formulate informed decisions and policies geared towards holistic, meaningful, and transformative English language education.

2.0 Related Literature

2.1 English Proficiency

Hymes (1974) defines language proficiency as the ability to use a language effectively in authentic communicative situations. Harley, Cummins, Swain, and Allen (1990) also describe language proficiency as the ability to use a language accurately (linguistic knowledge) and appropriately in various contexts (sociolinguistic competence) and to organize one's thoughts through language (discourse competence). More comprehensively, according to Canagarajah (2006), language proficiency does not only include ability to use a language correctly in appropriate context for a functional purpose but also awareness of different norms of interaction attached in the language and in its different varieties. In the case of English being the world's lingua franca, English proficiency is currently used as 'a benchmark to assess an individual's inclusion or exclusion with regard to politics, commerce, the economy, society, and education' (Nallaya, 2012, p. 149).

There are many widely recognized systems and frameworks used to define and measure language proficiency. One of which is the American Council on the Teaching of Foreign Languages (ACTFL) Proficiency Guidelines. Using a scale with descriptors, it categorizes language learners into novice, intermediate, and advanced (ACTFL, 2018). In Europe and some parts of the globe, the Common European Framework of Reference for Language Learning, Teaching, and Assessment (CEFR) is a popular guideline used to describe proficiency of foreign

language learners. Widely used in language teaching worldwide, it provides a method of learning, teaching, and assessing foreign languages (Council of Europe, 2001).

Table 1. CEFR Global Descriptors

Level	Description	Level Descriptors
C2	Proficient User – Mastery or Proficient	Can understand with ease virtually everything heard or read. Can summarize information from different spoken and written sources, reconstructing arguments and accounts in a coherent presentation. Can express him/herself spontaneously, very fluently and precisely, differentiating finer shades of meaning even in more complex situations.
C1	Proficient User - Effective Operational Proficiency or Advanced	Can understand a wide range of demanding, longer texts, and recognize implicit meaning. Can express him/herself fluently and spontaneously without much obvious searching for expressions. Can use language flexibly and effectively for social, academic and professional purposes. Can produce clear, well-structured, detailed text on complex subjects, showing controlled use of organizational patterns, connectors and cohesive devices.
B2	Independent User - Vantage or Upper Intermediate	Can understand the main ideas of complex text on both concrete and abstract topics, including technical discussions in his/her field of specialization. Can interact with a degree of fluency and spontaneity that makes regular interaction with native speakers quite possible without strain for either party. Can produce clear, detailed text on a wide range of subjects and explain a viewpoint on a topical issue giving the advantages and disadvantages of various options.
B1	Independent User - Threshold or Intermediate	Can understand the main points of clear standard input on familiar matters regularly encountered in work, school, leisure, etc. Can deal with most situations likely to arise whilst travelling in an area where the language is spoken. Can produce simple connected text on topics which are familiar or of personal interest. Can describe experiences and events, dreams, hopes & ambitions and briefly give reasons and explanations for opinions and plans.
A2	Basic User – Waystage or Elementary	Can understand sentences and frequently used expressions related to areas of most immediate relevance (e.g. very basic personal and family information, shopping, local geography, employment). Can communicate in simple and routine tasks requiring a simple and direct exchange of information on familiar and routine matters. Can describe in simple terms aspects of his/her background, immediate environment and matters in areas of immediate need.
A1	Basic User – Breakthrough or Beginner	Can understand and use familiar everyday expressions and very basic phrases aimed at the satisfaction of needs of a concrete type. Can introduce him/herself and others and can ask and answer questions about personal details such as where he/she lives, people he/she knows and things he/she has. Can interact in a simple way provided the other person talks slowly and clearly and is prepared to help.

(Council of Europe, 2001, p. 25)

In measuring proficiency of individuals in the English language, globally recognized high-stakes tests such as the International English Language Testing System (IELTS), the Test of English as a Foreign Language (TOEFL), and the Test of English for International Communication (TOEIC) are used. These standardized English tests are commonly used by academic, government, and corporate organizations for admission, hiring, job promotion, professional certification, and migration purposes. The EF Education First's Standard English Test (EFSET), an online adaptive English test of reading and listening skills, is also used to draw more comprehensive picture of English proficiency across countries and geographical regions. Educators, officials, and business leaders use results for organizational strategic planning and policymaking.

Recent reports reveal the overall proficiency levels of test takers from the Philippines. In the Test and Score Data Summary for the TOEFL iBT Tests from January to December 2017, test takers from the Philippines had a total mean score of 89, equivalent to B2 (Upper Intermediate) scale of the CEFR (Educational Testing Service [ETS], 2018a; Papageorgiou, et al., 2015). Similarly, in the IELTS Test Taker Performance Report for 2017, test takers from the Philippines got a mean band score of 6.84 for the Academic Module and 6.29 for the General Training Module, both equivalent to B2 (Upper Intermediate) scale of the CEFR (IELTS Partners, 2018a; 2018b). However, in the EFSET administered by EF Education First, test takers from the Philippines recorded an overall English proficiency index of 61.84 (High Proficiency), equivalent to B1 (Intermediate) level of the CEFR (EF Education First, 2018). These data are relevant to the current study since its main purpose is to examine the proficiency level of a small group of English language learners in the Philippines working in a specific context where English is used as the medium of communication.

2.2 Demographic Variables Influencing Language Proficiency

Learning the English language is directly and indirectly influenced by several factors. Age, socio-economic status, educational attainment, aptitude, intelligence, learning styles, personality, learner's mastery of his first language, and opportunities or exposure to English are believed to be influential in the rate of learning and can predict learner's success in gaining proficiency with the language (Fromkin, Rodman, & Hyams, 2014; Khasinah, 2014; Ellis, 1986; Orillos, 1998, Latu, 1994, Frankfurt International School, 2018). In addition, motivation and socio-cultural background can also influence language learning outcomes (Nallaya, 2012).

In the study of Prapphal and Oller (1982) investigating the relationship between demographic variables and English proficiency of university students in Thailand, it was found that demographic variables were significantly related to English proficiency. El-Omari (2016) also found the same among Jordanian secondary school students in English. Specifically, he found that social and socio-economic factors have direct impacts on students' achievement in English language learning.

In terms of gender as demographic variable, females tend to be more proficient and communicative in English than their male counterparts (EF Education First, 2018). This was supported by the 2017 TOEIC test takers performance report released by Educational Testing Service (2018b). Based on the TOEIC listening and reading comprehension scores across gender, females scored higher than male test takers. In terms of age, younger learners learn a (new) second language faster and easier (Roherick, 1983). This was found true in the study of Wang (1999) where younger people who migrated to Canada tend to develop higher proficiency faster and easier than those who arrived at an older age.

On the other hand, in Morocco, El Ghouati, Koumachi, and Khoumich (2018) investigated the potential impact of students' demographic variables (i.e. gender, age, computer experience, and computer use) on achievement in English among Moroccan university students. They found that there is no significant relationship between gender, age, and computer experience and frequency of use on students' level of achievement. Similarly, Phon (2017) also examined the factors affecting the English language proficiency of students majoring in English at a rural university in Cambodia. Findings revealed that socio-economic status as a demographic factor does not significantly affect English proficiency. The study of Hines (2015) also confirmed that there is no significant relationship between demographic variables and English language learning.

3.0 Methodology

3.1 Research Design

This study utilized the descriptive-correlational research design to describe the demographic variables and existing English proficiency of the respondents and to establish patterns of relationship of both. According to Grove, Gray, and Burns (2014), this method is appropriate when a study's aim is to describe variables and examine relationships among these variables. This method can help identify many interrelationships of variables that have already occurred or are currently occurring. As a process, according to Wragg (2012), it begins describing what happens and then it examines systematically the correlation between process and outcome.

3.2 Respondents of the Study

The respondents of the study were academic professionals in one of the higher education institutions (HEI) in the Philippines where English is the main medium of instruction. With their ages ranging from 20 - 69, they are considered adult language learners. They have diverse backgrounds with the English language considering their age when they started learning the language, amount of exposure to the language, academic positions, and socio-economic circumstances. All faculty members in the undergraduate programs of the subject HEI were involved in the study.

3.3 Data Gathering Instrument

To gather data on demographic variables such as age, gender, civil status, length of service, educational attainment, specialization, and designation, a survey questionnaire was used. To determine the English proficiency levels of the respondents, an English proficiency test from the Official IELTS Practice Materials Volume 2 published by the University of Cambridge Local Examinations Syndicate [UCLES] (2010) was administered by the researcher. Containing items from the previously administered tests, it resembles the actual IELTS test in terms of format, content, and level of difficulty. The testing material used was secured in Dubai, UAE from IDP IELTS Exhibition in TESOL Arabia Conference in 2012; hence, its non-exposure to the respondents in the Philippines was highly assured. The IELTS Academic Module was particularly used as an assessment tool for this study since the respondents were working in an academic context.

3.4 Data Gathering Procedure

Prior to the administration of the survey questionnaire and the English proficiency test, permission to conduct the study was sought. After approval and endorsement from the school management, the researcher visited different colleges / departments and communicated to the respondents. Having first-hand experience in taking the test and in giving IELTS preparation courses in the Middle East, the researcher personally administered the English proficiency test by college/department. He administered the Listening, Reading, and Writing sections of the test for one week covering all colleges and the Speaking section (Interview) for another week. The researcher systematically ensured the consistency and correctness of the data for each respondent. Names or codes were written in the profile form and answer sheet so that respondents could personally access the result of their test at a later time from the researcher. The Speaking test was also recorded and videotaped for researcher's reference during scoring and for respondents' future use. The speaking and writing parts were scored using the prescribed rubrics. The collected data were then tallied, analyzed, and correlated in order to answer the specific questions and confirm/reject the hypotheses

3.5 Statistical Treatment of Data

Descriptive statistics was employed to compute means, standard deviations, frequency counts, and percentages of data on demographic variables and English proficiency. The one-way analysis of variance (ANOVA) for repeated measures was also used to determine significant differences between the means of the four macro-linguistic skills (listening, reading, writing, speaking).

The following formula was used:

$$\begin{aligned} \text{TSS} &= \frac{X^2 - (\sum X)^2}{N} \\ \text{BSS} &= \frac{1}{n} \sum G_i^2 - \frac{(\sum X)^2}{N} \\ \text{WSS} &= \text{TSS} - \text{BSS} \end{aligned}$$

Where:

$$\begin{aligned} \text{TSS} &= \text{Total Sum of Squares} \\ \text{BSS} &= \text{“Between” Sum of Squares} \\ \text{WSS} &= \text{“Within” Sum of Squares} \\ \frac{(\sum X)^2}{N} &= \text{Correction Factor} \end{aligned}$$

To correlate the respondents' language proficiency and their age, the Pearson-r was used with the following formula:

$$r = \frac{N\sum XY - \sum X \sum Y}{\sqrt{[N\sum X^2 - (\sum X)^2][N\sum Y^2 - (\sum Y)^2]}}$$

To compute correlation between language proficiency and respondents' gender, length of service, and educational attainment, the z-test was used with the following formula:

$$Z = \frac{X_1 - X_2}{\sqrt{\frac{S_1}{N_1} + \frac{S_2}{N_2}}}$$

The Spearman – Rho Rank Difference Coefficient of Correlation was used to find correlation between respondents' language proficiency and their civil status, specialization, and designation.

The formula of which is as follows:

$$P = 1 - \frac{6 \sum D^2}{n(n^2-1)}$$

The null hypotheses were tested at .05 level of significance.

To analyze the English proficiency performance of the respondents, the following table of band descriptors was used.

Table 2. IELTS Band Descriptors

Band	Description	Band Descriptors
9	Expert User	Has fully operational command of the language; Use of English is appropriate, accurate, and fluent; shows complete understanding.
8	Very Good User	Has a fully operational command of the language with only occasional unsystematic inaccuracies and inappropriate usage; may misunderstand some things in unfamiliar situations; handles complex detailed argumentation well.
7	Good User	Has an operational command of the language, though with occasional inaccuracies, inappropriate usage and misunderstandings in some situations; generally handles complex language well and understands detailed reasoning.
6	Competent User	Has a generally effective command of the language despite some inaccuracies, inappropriate usage and misunderstandings; can use and understand fairly complex language, particularly in familiar situations.
5	Modest User	Has a partial command of the language and copes with overall meaning in most situations, although likely to make many mistakes; should be able to handle basic communication in own field.
4	Limited User	Basic competence is limited to familiar situations; frequently shows problems in understanding and expression; not able to use complex language.
3	Extremely Limited User	Conveys and understands only general meaning in very familiar situations. Frequent breakdown in communication occurs.
2	Intermittent User	Has great difficulty understanding spoken and written English.
1	Non-user	Has no ability to use the language except a few isolated words.
0	Did not attempt the test	Did not answer the questions.

Quoted from the British Council's (2018c) Take IELTS website

4. Results

4.1 The level of English proficiency of the respondents when they are grouped according to demographic variables

Table 3. Level of English proficiency of the respondents when grouped according to age

Age Range	Mean Score	Description
60 – 69	4.50	Limited user
50 – 59	3.00	Extremely limited user
40 – 39	5.25	Modest user
30 – 29	4.90	Limited user
20 – 19	5.38	Modest user
Average	4.60	Limited user

Table 3 reveals that the respondents in age bracket 20 – 29 has the highest level of proficiency with a mean score of 5.38 (Modest User), followed by age group 40 – 39 with a mean score of 5.25 (Modest User), 30 – 29 with 4.90 (Modest User), 60 – 69 with 4.50 (Limited User), and 50 – 59 with 3.00 (Extremely Limited User). While the youngest age group has the highest level of English language proficiency, there is no linear pattern reflecting that English proficiency declines as individual matures.

Table 4. Level of English proficiency of the respondents when grouped according to gender

Gender	Mean Score	Description
Male	5.00	Modest user
Female	4.88	Limited user
Average	4.94	Limited user

Table 4 reflects the level of proficiency of the respondents when grouped according to gender. As shown above, the male respondents have slightly higher score/level than female with a difference of 0.12. Overall, the male group is considered “modest user” while the female group as “limited user.” The data refute the common belief that females are more linguistically inclined than males (Orillos, 1998).

Table 5. Level of English proficiency of the respondents when grouped according to civil status

Civil Status	Mean Score	Description
Single	5.06	Modest user
Married	4.93	Limited user
Widow	3.00	Extremely limited user
Average	4.33	Limited user

Table 5 shows that singles have the highest mean score among the respondents with 5.06 (Modest User), followed by the married ones with 4.93 (Limited User), and the widow with 3.00 (extremely limited user). The data illustrate that single respondents tend to be at the advantage in gaining higher English proficiency.

Table 6. Level of English proficiency of the respondents when grouped according to length of service

Length of Service	Mean Score	Description
36 – 40	3.00	Extremely limited user
26 – 30	5.50	Modest user

11 – 15	4.57	Limited user
6 – 10	5.21	Modest User
0 – 5	4.94	Limited user
Average	4.64	Limited user

Table 6 shows that respondents with the length of service of 26 – 30 years have the highest English proficiency level with a mean score of 5.50 (Modest User), followed by those with 6 – 10 years in the service with a mean score of 5.21 (Modest User), 0 – 5 years with 4.94 (Limited User), 11 – 15 years with 4.57, and 36 – 40 years with 3.00 (Extremely Limited User). The data reveal that having longer experience at work where English is used as the medium of communication does not always guarantee development of higher English language proficiency.

Table 7. Level of English proficiency of the respondents when grouped according to highest educational attainment

Educational Attainment	Mean Score	Description
Masteral	5.20	Modest user
Bachelor	4.42	Limited user
Average	4.64	Limited user

Table 7 shows that respondents who have masteral degree have higher level of English proficiency. As reflected above, masteral graduates have an overall score of 5.20 (Modest User) while the non-masteral degree holders only have a score of 4.42 (Limited User). The data suggest that undergoing higher educational qualification can help develop English language proficiency.

Table 8. Level of English proficiency of the respondents when grouped according to specialization

Specialization	Overall Score	Description
Nursing	5.78	Modest user
Social Science	5.66	Modest user
Chemistry	5.50	Modest user
Geodetic Engineering	5.50	Modest User
HRM	5.50	Modest user
Management	5.50	Modest user
Mathematics	5.50	Modest user
Office Administration	5.50	Modest user
English	5.40	Modest user
Accounting	5.00	Modest user
Mass Communication	5.00	Modest user
Biology	4.00	Limited user
Criminology	4.00	Limited user
Filipino	4.00	Limited user
I.T.	4.00	Limited user
Marketing	4.00	Limited user
P.E.	4.00	Limited user
Finance	3.00	Extremely limited user

Midwifery	3.00	Extremely limited user
Average	4.72	Limited user

Table 8 reveals that Nursing instructors got the highest English proficiency level throughout the institution with the mean score of 5.78 (Modest user). They were closely followed by the Social Science instructors with 5.66 (Modest User), and then by the Chemistry, Geodetic Engineering, HRM, Management, Mathematics, and Office Administration instructors with 5.50 (Modest User). The English instructors scored 5.40 (Modest user) while the Accounting and Mass Communication instructors got 5.00 (Modest User). The Biology, Criminology, Filipino, I.T., Marketing, and P.E. instructors fared at 4.00 (Limited User) while the Finance and Midwifery instructors ended at 3.00 (Extremely Limited User). The data show that having high English proficiency is not exclusive to English majors.

Table 9. Level of English proficiency of the respondents when grouped according to designation

Designation	Mean Score	Description
Department Head	7.0	Good user
Program Coordinator	5.16	Modest user
Instructor	4.86	Limited user
Average	5.67	Modest user

Table 10 shows the level of English proficiency of the respondents when grouped according to designation. The respondent with the designation of Department Head has the highest level of English proficiency with the mean score of 7.0 (Good User), followed by Program Coordinator with the mean score of 5.16 (Modest User), and Instructor with a mean score of 4.86 (Limited User). As reflected, the level of English proficiency progresses as the designation goes higher.

4.2 Respondents' level of proficiency in the four (4) macro-linguistic skills

Table 11. Analysis of Variance (ANOVA) of the respondents' level of proficiency in the four macro-linguistic skills

Source of Variation	SS	Df	MS	Fc
Between Macro-Linguistic Skills	55.21	3	18.4	
Within Macro-Linguistic Skills	259.68	160	1.62	
Total	314.89	163	20.02	11.36

Table 11 presents the one-way analysis of variance (ANOVA) of the respondents' level of proficiency in the four macro-linguistic skills (listening, reading, writing, and speaking). The sources of variation are Between Macro-Linguistic Skills and Within Macro-Linguistic Skills. The Sum of Squares (SS) Between Macro-Linguistic skills is 55.21 while Within Macro-Linguistic Skills is 259.68 yielding a total of 314.89. On degrees of Freedom, Between Macro-Linguistic Skills has 3 and Within Macro-Linguistic Skills has 160, making a total of 163. On the Mean of Sums (MS), Between Macro-Linguistic Skills has 18.4 while Within Macro-Linguistic Skills registered 1.62, making a total of 20.02. The computed value of the Fc which is 11.36 is within the rejection region or greater than the tabular value of Fc which is 2.66, hence the null hypothesis is rejected.

4.3 Correlations between the respondents' English proficiency and their selected demographic variables

Table 12. Correlation between respondents' English proficiency and their age

	Proficiency (X)	Age (Y)	XY	X ²	Y ²	r
Sums	202.5	1491	7195.5	1047.25	5943.3	
						0.34

Table 12 shows the correlation between the respondents' English language proficiency level and their age. As reflected in the table, the sum of the respondents' overall proficiency is 202.5 and their age is 1491. Applying the Pearson's Product Moment Coefficient of Correlation, the value of r is 0.34. Based on .05 level of significance, there exists very weak correlation between the respondents' age and English proficiency; hence, null hypothesis is rejected.

Table 13. Correlation between respondents' English proficiency and their gender

Gender	Overall Proficiency	SD	F	Z
Male (X_1)	5.00	$S_1 = 0.97$	19	
Female (X_2)	4.89	$S_2 = 1.15$	22	
				0.34

Table 13 shows the correlation between the respondents' English language proficiency and their gender. As shown in the table, the male respondents (X_1) have an overall average proficiency of 5.00 with a Standard Deviation (SD) of 0.97 and a frequency of 19. The female respondents (X_2) on the other hand have an overall average score of 4.89 with the Standard Deviation (SD) of 1.15 and a frequency of 22. Using the z-test, the value of z is 0.34. Based on the result of the z-test vis-à-vis 0.05 level of significance, there exists no significant correlation between the respondents' gender and proficiency; hence, null hypothesis (H_0) is accepted.

Table 14. Correlation between respondents' English proficiency and their civil status

Civil Status	Frequency	Mean Score	R_x	R_y	D	D^2	P
Single	16	5.06	2	1	1	1	
Married	24	4.93	1	2	1	1	
Widow	1	3.00	3	3	0	0	
						$\sum D^2 = 2$	0.5

Table 14 shows the correlation between the respondents' English proficiency and their civil status. As reflected, there were 16 single respondents with a mean proficiency score of 5.06, 24 married respondents with a mean proficiency score of 4.93, and 1 widow with a mean proficiency score of 3.00. Applying the Spearman Rho Rank Difference Coefficient of Correlation, the value of P is 0.5. Comparing the value of P against 0.05 level of significance, it is revealed that there is no significant correlation between civil status and level of English language proficiency; hence, null hypothesis (H_0) is accepted.

Table 15. Correlation between respondents' English proficiency and their length of service

	Sums ($\sum X$)	Mean (X)	Standard Deviation (SD)	Z
Length of Service (X_1)	304.5	7.43	7.86	
Overall Score (X_2)	202.5	4.94	1.07	
				5.38

Table 15 shows the correlation between the respondents' level of English proficiency and their length of service. As shown in the table, the length of service of the respondents has a sum of 304.5, a mean of 7.43, and a standard deviation of 7.86. Their overall English proficiency score, on the other hand, has a sum of 202.5, a mean of 4.94, and a standard deviation of 1.07. Applying z-test computation, the value of z came out at 5.38, indicating that there is a very significant correlation between the respondents' English proficiency and length of service. This means that as one grows older in the teaching profession, the more he develops his proficiency in the English language.

Table 16. Correlation between respondents' English proficiency and their educational attainment

Educational Attainment	<i>F</i>	Mean Score (<i>X</i>)	Standard Deviation (SD)	<i>Z</i>
Masteral (X_1)	27	5.2	1.03	
Bachelor (X_2)	14	4.43	0.96	
				2.36

Table 16 shows the correlation between the respondents' English proficiency level and their educational attainment. As reflected in the table, there were 27 masteral graduates (X_1) with a mean proficiency score of 5.2 and a standard deviation of 1.03. Bachelor graduates (X_2) on the other hand were registered at 14 with mean proficiency score of 4.43 and a standard deviation of 0.96. Applying the z-test, the value of z came out at 2.36. The z value indicates that there is a significant correlation between educational attainment and English proficiency; hence, the null hypothesis is rejected. The finding further implies that as the respondents' qualifications go up, their level of English proficiency also increases.

Table 17. Correlation between respondents' English proficiency and their specialization

Specialization	Frequency	Mean Score	R_x	R_y	<i>D</i>	D^2	<i>P</i>
Nursing	7	5.78	1	1	0	0	
English	5	5.40	2	9	7.00	49.00	
Social Science	3	5.66	3.5	2	1.50	2.25	
IT	3	4.00	3.5	14.5	11.00	12.10	
Math	2	5.50	11.87	5.5	6.37	40.64	
Filipino	2	4.00	11.87	14.5	2.62	6.89	
Biology	2	4.00	11.87	14.5	2.62	6.89	
HRM	2	5.50	11.87	5.5	6.37	40.64	
Management	2	5.50	11.87	5.5	6.37	40.64	
Geodetic Engineering	2	5.50	11.87	5.5	6.37	40.64	
Criminology	2	4.00	11.87	14.5	2.62	6.89	
Midwifery	2	3.00	11.87	18.5	6.62	43.89	
Mass Comm.	1	5.00	16	10.5	5.50	30.25	
Marketing	1	4.00	16	14.5	1.50	2.25	
Accounting	1	5.00	16	10.5	5.50	30.25	
Chemistry	1	5.50	16	5.5	10.50	110.25	
Finance	1	3.00	16	18.5	2.50	6.25	
PE	1	4.00	16	14.5	1.50	2.25	
Office Administration	1	5.50	16	5.5	10.50	110.25	
						$\sum D^2 =$ 691.12	0.39

Table 17 presents the correlation between the respondents' level of English proficiency and their specialization. As shown in the table, respondents specializing in Nursing have a proficiency mean score of 5.78, followed by those specializing in English with a mean score of 5.4. Respondents with specializations in Midwifery and

Finance have the lowest proficiency score of 3.00 each. Overall, the sum of the squared standard deviation of all the specializations is 691.12. Applying the Spearman Rank Difference Coefficient of Correlation (P), the value of P came out at 0.39. The P value of 0.39 indicates that there is no correlation between the respondents' level of English proficiency and their specialization basing at .05 level of significance. Therefore, the null hypothesis (H_0) is accepted.

Table 18. Correlation between respondents' English proficiency and their Designation

Designation	Frequency	Mean Score	R_x	R_y	D	D^2	P
Department Head	1	7.00	3	1	2	4	
Program Coordinator	3	5.16	2	2	0	0	
Instructor	37	4.86	1	3	2	4	
						$\sum D^2 = 8$	-1

Table 18 shows the correlation between the respondents' level of English proficiency and their designation. As reflected in the table, Department Head has the highest mean score of 7.00 and D^2 of 4, while Coordinator has a mean score of 5.16 and D^2 of 0. Instructor has a mean score of 4.86 and D^2 of 4. After applying Spearman Rank Difference Coefficient of Correlation, the value of P came out at -1, which means that there is a perfect negative correlation between the respondents' level of English proficiency and their designation; hence, the null hypothesis (H_0) is accepted.

Discussion

Results show that the respondents' level of English proficiency varies depending on the specific demographic variable being investigated. When the mean band scores from each demographic variable are averaged, the general English proficiency level of the respondents is 4.12 (Limited User), which means that the respondents' basic competence in English is limited to familiar situations, that they frequently exhibit difficulties in understanding and expression, and are unable to use complex language (British Council, 2018). When the figure is compared with the CEFR scale, it is equivalent to B1 (Intermediate). With this equivalency, the study's results resemble the findings of EF Education First (2018) in its 2018 EF English Proficiency Index reporting the performance of test takers from the Philippines in 2017. The report indicates that Philippine test takers have a proficiency index of 61.84 (High Proficiency), equivalent to B1 of the CEFR. This is contrary to the findings of ETS (2018) and IELTS Partners (2018) indicating a higher proficiency level for Philippine test takers, registering B2 level for both TOEFL iBT and IELTS tests. Differences in results may have been caused by several factors such as the varying natures or formats of the tests, the examinees themselves, and the different times or episodes when the tests were administered.

Looking closely at the mean scores when grouped according to demographic variables, there are some patterns and tendencies that can be established. For example, as educational attainment and designation progress, the level of English proficiency also increases. In terms of civil status, single respondents seem to be at the advantage in gaining higher proficiency in English. In terms of specialization and length of work experience, English proficiency is not exclusive to those who studied English language and to those who are frequently exposed to it. The results also interestingly reveal that English proficiency is not only for females and that it chooses no specific age.

When the relationship of the respondents' levels of proficiency in the four (4) macro-linguistic skills was examined, it was found that there are significant differences in their level of proficiency in listening, reading, writing, and speaking; hence, the null hypothesis (H_0) is rejected. It is a common belief that language skills are related and influence one another. However, in this study, results reveal that there is no uniform level of the respondents' English language proficiency in the four macro-linguistic skills. While one may perform high in one skill, he/she may also perform low in other skills. Further, while all the skills make up one's overall English

proficiency level, it is also implied in the findings of the study that one skill does not necessarily affect or influence the other skill/s.

Investigating the relationship of the respondents' demographic variables and their levels of English proficiency, it was found that there are positive correlations between age, educational attainment, and length of service; hence the null hypotheses for these demographic variables are rejected. The positive correlation between age and English proficiency supports the claim that age affects the rate of language proficiency development (Fromkin, Rodman, & Hyams, 2014) and that younger learners tend to learn faster and easier (Roherick, 1983; Wang, 1999) than adult learners. The strong correlations of educational attainment and length of service with English proficiency may be due to the fact that when learners pursue post-graduate studies, they are exposed to many opportunities to use the English language. Similarly, when learners work in an English-rich environment at a longer time, they tend to develop higher proficiency with the language.

While the abovementioned variables positively correlate with English proficiency, gender, civil status, specialization, and designation seem otherwise; hence, the null hypotheses for these demographic variables are rejected. The results confirm the finding of El Ghouati, Koumachi, and Khoumich (2018) that gender does not influence English proficiency. The strong negative correlations between civil status, specialization, and designation suggest that an individual can be proficient in English regardless of what s/he is and what s/he does in life. These negative correlations also suggest that there might be more important unexplored factors beyond demographic variables that should be looked into in order to find out what propel and what hinder English proficiency development among adult language learners.

Conclusion

Findings reveal that the respondents of this study have intermediate level of English proficiency, lower than what is expected from adult language learners working in a higher education institution. Findings further disclose that there are significant differences in the respondents' level of proficiency in the identified macro-linguistic skills. Lastly, results show that demographic variables such as age, educational attainment, and length of service are positively correlated with English proficiency, while gender, civil status, specialization, and designation are negatively correlated with the same.

The results imply that there is a need for an English language enhancement program designed to increase the respondents' English proficiency level. Since results of this study also show that there are significant differences in scores in the four macro-linguistic skills, there is a need for an integrative approach in teaching, curriculum design, and instructional materials development to ensure that no language skill is left behind. The positive correlations between English proficiency and age, educational attainment, and length of service also demand for more varied opportunities for personal growth and professional development to keep more qualified and more seasoned academic professionals in the academe. The non-correlations of other variables such as gender, civil status, specialization, and designation with English proficiency also suggest that there are more significant factors beyond demographic variables influencing the respondents' English proficiency development, hence the need for more comprehensive investigation along this line of inquiry.

While the findings of this study indicate that the English proficiency of the respondents is lower than the prescribed level, it should be noted that such findings are based only on an official practice test that is not administered in an official test condition. The results can provide general insights on understanding adult language learners, designing curriculum, language testing, and formulating policies on training and development but may lack reliability and generalizability considering the limitations of the instrument used and the size of the population. Future researchers interested in investigating the same line of inquiry should use official data from relevant testing agencies in order to render more valid and reliable conclusions.

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Chinese Language Complexities among International Students in China

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Abstract

This paper reports on a study investigating features related to Chinese linguistic complexities among international students enrolled in Chinese courses in China. The main objective of this study is to highlight the major feature of Chinese complexities encountered by international students and explore whether international students' native languages interfere the process of learning Chinese. The study used a survey questionnaire to collect the data from 147 male and female Bachelor, Master and PhD students enrolled in basic Chinese classes in two universities in China. Based on certain Descriptive and ANOVA calculations, findings of the study indicate that the participants indeed experienced Sound Similarities, Chinese Characters and Chinese Tones as the main features related to Chinese linguistic complexities. Moreover, the results also revealed the participants' native language interference in the process of learning Chinese. The study ends in several recommendations to Chinese teachers as well as to foreign Chinese language learners with regard to teaching and learning Chinese.

Keywords: Chinese as a Foreign Language, Linguistic Complexities, Native Language Interference

I. Introduction

Success and failure in learning a second language depend on different variables. The most fundamental of these variables are intelligence, attitude, language aptitude, learning styles, learning strategies, second language complexities and native language interference (Nation, 2001; Dornyei, 2006; Lightbown, Spada, Ranta & Rand, 2006; Ellis, 2008; Lord, 2008; Fatemi, Sobhani and Abolhassan, 2012; Khan, 2011 and Karim and Nassaji, 2013).

In the field of second language learning, linguistic complexity has been generally used as dependent variable (Bulte and Housen, 2012 and Norris and Ortega, 2009). Ellis (2003, p. 340) defines linguistic complexity as "the extent to which the language produced in performing a task is elaborate and varied." Ortega (2009, p. 128) identifies three main reasons for assessing linguistic complexity as gauging proficiency, describing performance, and benchmarking development. Second language complexity has been recognized in two distinctive ways: as cognitive and linguistic complexity (Williams and Evans 1998; Housen, Pierrard and Van Daele 2005, and DeKeyser 2008). Both cognitive and linguistic complexity mainly refer to variety of language features and subsystems like items, patterns, structural, phonological, morphological, syntactic, lexical rules (Housen, 2009).

On the other hand, native language interference is another variable in second language learning which often takes place in any linguistic situation while learning or using a second language (Nation, 2001; Lord, 2008; Fatemi, Sobhani and Abolhassan, 2012, and Nassaji, 2013). Language interference is defined by many linguists. According to Krashen (1982), language interference can be understood as “the automatic transfer, due to habit, of the surface structure of the first language onto the surface of the target language.” Ellis (1997) defines language interference as the “errors in the learner’s use of the foreign language that can be traced back to the native tongue.” In addition, Elder and Davies (1998) state that language interference come from language distance and the relative degree of differences between the target language and native language is referred to as language distance, which may affect the degree of success of language learning.

Thus, as research shows there are different variables which can affect second language learning process. Two of these variables are language learning complexities and native language interference (Housen, 2009; Lee and Kalyuga, 2011, and Mede, Tatal, Ayaz, Calisir and Akin, 2014). This study is to highlight features related to Chinese linguistic complexities as well as native language interference encountered by international students while learning Chinese in China.

Statement of the Problem

Recently, there have been many people learning Chinese as a second language and they begin their studies with deep enthusiasm. However, the level of this enthusiasm does not last long and soon students change their preferences and lose that motivation specially in their first year studying Chinese (Donche, Van Petegem and Vanthournout, 2011 and Vanthournout, 2012).

Research shows that there are different factors which demotivate Chinese language learners to continue their learning process. The target language complexities and native language interference in the target language learning process are two critical issues in second language learning (Lee and Kalyuga, 2011, and Mede, Tatal, Ayaz, Calisir and Akin, 2014). When it comes to Chinese, even Chinese people themselves are proud of their language complexities and say that it might be the most difficult language in the world (Moser, 1991). Moser also states that it is common with anyone starting to undertake studying Chinese as a foreign language to ask him/herself “why in the world am I doing this?” after some time. Moser (1991) in the end concludes “if you don’t know the difficulties in Chinese language, you’ll never know it.” Kajta (2015) on the other hand claims that even without the learning the characters, Chinese is difficult to learn (Kajta, 2015). Moreover, Lee and Kalyuga (2011) state that lack of resemblance between Chinese language characters and the way they are pronounced (Pinyin) makes the language more difficult. Tinsley (2014) further asserts that there are a great number of students who believe that compared to any other languages, Chinese is hard to learn.

In addition, native language interference is seen as another affecting variable on learning a foreign language. Mede, Tatal, Ayaz, Calisir and Akin (2014) state that in second language acquisition, there is a high probability of native language impact which may cause certain errors. Mispronunciation and grammatical errors are reported as the most common types of interference between native language and second language learning by Manrique (2013). Ashari and Munir (2015) also claim that the interference between native language and target language mainly happen because of the lack of students’ knowledge about the target language complexities.

However, with regard to teaching Chinese as a foreign language, research shows that Chinese has remained as the most under-studied as concerned with international students’ language learning complexities (Yu, 2010). Yu also adds that very little research has investigated international students’ academic adaptation to language attitudes and motivation. Kajta (2015), further states that there are lots of discussion on barriers of teaching Chinese to foreign students and lack of agreement in this regard has led to the application of variety of approaches to teaching Chinese as a foreign language. China National Knowledge Infrastructure (CNKI), Chinese Teaching in the World and Journal of International Chinese Teaching on the other hand confirm that research findings on teaching Chinese as a foreign language complexities is scarce (Tsui, 2017).

Thus, considering the everyday raise in number of the foreign students learning Chinese as a foreign language, linguistic complexities of Chinese and the interferences of native language in learning a second language, it is essential to highlight the features related linguistic complexities encountered by foreign students and whether the students' native languages interfere the process of learning Chinese as a foreign language. The research questions are as follow:

Research Questions

1. What are the main features related to Chinese linguistic complexities encountered by international students while learning Chinese?
2. Do international students' native languages affect Chinese complexities?
3. Do international students with different native language background experience the same level of linguistic complexities while learning Chinese?

Significance of the study

The study is conducted to achieve a two-fold purpose: to highlight features related Chinese linguistic complexities encountered by international students while learning Chinese in China, and to investigate whether international students' native languages interfere in learning Chinese. Findings of this study will result in knowing Chinese complexities to foreign learners of Chinese and reducing the number of linguistic complexities. The findings of this study will also have practical suggestions to Chinese courses instructors as well as new international Chinese learners on understanding Chinese complexities and their native language interference and overcoming these complexities while learning Chinese.

II. Background of the study

In educational setting, learning complexities are generated through different social, cultural, parental, attitudinal, motivational, psychological, personal and academic factors and such complexities limit the achievements of learners (Cassity and Harris, 2000; Copeland, 2007; Eberly, Joshi, and Konzal, 2007; Reeves, 2009; Walker-Dalhouse, Sanders, and Dalhouse, 2009). According to Conn (1995), there are two main types of learning barriers as the perceived barriers and the actual barriers in adult learning and they are formed into three categories: institutional barriers, situational barriers and dispositional barriers. Linguistic complexities are part of the institutional barriers (Conn, 1995). Henderson (2005) states that since language can impact variety aspects of our daily lives, much research is required to investigate our daily communication complexities specially when it comes to learning a second or a foreign language. Kim (2009) also adds that linguistic complexities are kind of language learning complexities which impact second language learning process and create negative emotional and cognitive reactions, which avoid language learners from taking required actions with regard to their learning progress.

On the other hand, second language complexity has been described as cognitive and linguistic complexities (Williams and Evans 1998; Housen, Pierrard and Van Daele 2005, and DeKeyser, 2008). Cognitive complexity is explained from the second language learners' perspective while linguistic complexity is defined based on the second language features. Cognitive complexity indicates the relative complexity in which language features are applied in second language acquisition and performance. It is a broader concept than linguistic complexity and a factor which can contribute to learning or processing difficulty. Linguistic complexity on the other hand is regarded in two different ways. The first is a dynamic feature of the language learner's interlanguage system and the second is a more constant feature of the individual linguistic components which construct the interlanguage system (Housen, 2009).

Certain recent studies also demonstrate that international students face linguistic complexities in language performance and proficiency with regard to their second language learning (Hayes and Lin 1994; Kagan and Cohen 1990, and Ying and Liese 1994). Among the languages, Chinese is one of the difficult languages

specially for foreign learners. One of the major challenges of learning Chinese is learning different Chinese linguistic elements such as strokes, which requires much time (Lee and Kalyuga, 2011) and this challenge mainly comes from lack of correspondence between the characters and their pronunciations. Moreover, the huge number of Chinese Characters which needs a lot of time to be learnt is another complexity for Chinese students as a foreign language (Sung and Wu, 2011). Xing (2004) on the other hand asserts that lots of higher level students have problems using upper intermediate vocabulary in their daily communication and use the lower level words and phrases like beginners.

Some empirical studies also highlight different challenges that international students face while learning Chinese. Yu and Watkins (2008) in their study on international students explore that second-year international students come across more challenges in learning Chinese than other years. In addition, Halliday (2014) suggests three points in his study on problems with teaching Chinese to foreign students. First, he points out that at the beginning, the best Chinese teachers are the ones who speak the same language as the students. Secondly, he states that Chinese characters should not be taught at early stage and thirdly Halliday adds that much attention should be given to phonological accuracy in Chinese. Moreover, Wang, Perfetti and Liu (2003), in their study in an American college find that students who study Chinese language for one semester face big challenges with regard to learning the tones and these challenges mainly come from lack of tones' characteristics in the students' native languages. They further conclude that the large number of homophones in Chinese language is another challenge that Chinese foreign language learners encounter. Further, Gao (2007) investigates the obstacles that American students encounter during their studies in China. He highlights three types of obstacles as cognitive, motivational and structural. Gao claims that the participants' cognitive obstacles are due to their low language proficiency levels.

On the other hand, due to different factors, research shows that first language influences the process second language learning. Factors like similarities and differences in the structure of the two languages, prior know and first language proficiency but these factors have both positive and negative impacts (Drakshahn, 2015). Hayati (2008) states that the degree of difference between the first and target language depicts the degree of complexity while the degree of similarity shows the degree of simplicity. Bhela (1999) asserts that writing and speaking in a target language, the learners tend to rely on their native language structures. Bhela adds that language interference is an error which is traced back to the first language. Karim and Nassaji (2013) examine the native language interference in second language writing skill and find a significance interference of native language in second language writing performance. Fatemi, Sobhan and Abolhassan (2012) also in their study on the interference of native language and second language explore that the difference in consonant clusters in native and second languages causes challenges with regard to second language pronunciation. However, Jin (2006) claims that only few studies investigated the impact of particular linguistic strategies on learning Chinese.

Thus, as research shows there are lots of challenges that non-Chinese students face while learning Chinese. In order to maximize the foreign students' Chinese learning complexities, it is essential to highlight major linguistic complexities as well as native language interference that they encounter while learning Chinese. Findings of this study will result in knowing these complexities and reducing a number of them as learning barriers non-Chinese learners.

III. Methods

Participants

The participants of the current study were 147 international bachelor, master and PhD students who enrolled in different majors at two universities (Northeast Normal University and Jilin University) in China. They were enrolled in 6 different basic Chinese classes. The participants' ages ranged between 16 to 40. Their native languages were different. The 147 participants spoke in 12 different languages and came from 15 different countries. Out of 147 students, 40 (27 %) were female. Beside their majors, they were also enrolled in basic Chinese classes by the universities

Almost half of the participants (46%) were Asian (Afghan, Pakistani and Arab), whose native languages were Persian, Urdu and Arabic, respectively. Most of the participants (98, 66.7%) spoke five languages, Urdu, (32, 21.8%), Persian (20, 13.6%), Spanish (19, 12.9%), Arabic (17, 11.6%) and Swahili (10, 6.8%).

Table 1: The participants' demographic data

Age	F	Gender		Level			Languages	
		M	F	BA	MA	PhD		
16-20	29	20	9	19	79	49	Urdu	32
21-25	51	31	20				Persian	20
26-30	32	24	8				Arabic	17
31-35	26	24	2				Spanish	19
36-40	9	8	1				Swahili	10
							Others	49
Total								147

Instrument

The instrument was a survey questionnaire adopted from Zhang (2013) and used to collect the data in the current study. It was conducted at the end of December, 2018. The instrument was found to have a high internal consistency when measured using Cronbach's alpha. The Cronbach's alphas for this instrument was $\alpha = 0.774$, which indicates it to be reliable.

The questionnaire comprised 2 major parts with 23 items. The first part included 10 items asking about the participants' demographic information such as gender, age, country of origin, native language, education level, university, major, English proficiency, number of months/years in China and how long they studied Chinese language.

The second part of the questionnaire comprised of 2 different themes with 13 items. The first theme including 8 items was mainly on features related to Chinese linguistic complexities. The second theme comprising 7 items was asking about native language interferences. The second part must have been answered on a five point Likert scale from 1 (Strongly disagree) to 5 (Strongly agree).

During the participants' regular classes, the questionnaire sheets were distributed to the participants by their Chinese class teachers. They were asked to read every part carefully and response truthfully.

Table 2: Summary of the two different themes in the questionnaire

Themes	No/Items	Percentage
Linguistic complexities	8	62 %
Native language interference	5	38 %
Total	13	100 %

Table 3: Linguistic Complexities Theme

Theme 1		Likerts (Number & Percentage)				
No	Items	1 SD	2 D	3 U	4 A	5 SA
1	Choosing proper words in oral Chinese learning is the most difficult	6 (4.1)	30 (20.4)	33 (22.4)	58 (39.5)	19 (12.9)
2	The most difficult part in learning Chinese is learning the Characters.	12 (8.2)	16 (10.9)	10 (6.8)	48 (32.7)	61 (41.5)
3	Differentiating the tones in words are the most difficult in learning oral Chinese.	3 (2)	22 (15)	15 (10.2)	74 (50.3)	33 (22.4)
4	Sound similarities in oral communication is most challenging in learning Chinese.	5 (3.4)	8 (5.4)	22 (15)	78 (53.1)	34 (23.1)
5	Finding the proper words in expressing meaning in oral Chinese is the most complicated.	(0) (0)	20 (13.6)	33 (22.4)	76 (51.7)	18 (12.2)
6	Chinese Grammar is the most difficult part of learning Chinese.	14 (9.5)	39 (26.5)	27 (18.4)	46 (31.3)	21 (14.3)
7	I always have difficulties remembering Chinese words that I try to memorize.	8 (5.4)	25 (17)	23 (15.6)	65 (44.2)	26 (17.7)
8	I always have difficulties in using words in the right context in oral Chinese.	9 (6.1)	22 (15)	25 (17)	73 (49.7)	18 (12.2)

To answer the first research question, a descriptive analysis was conducted to show the frequency and percentage of the participants and their level of agreement in terms of every item in Chinese linguistic complexities. As shown in table 3, the statistics demonstrates that for linguistic complexities theme, the items in which the participants showed the highest level of agreement are item 4, 112 (76.2%), followed by item 2, 109 (74.2%), item 3, 107 (72.7%), item 5, 94 (64%), items 7 and 8, each 91 (61.9%), item 1, 77 (52.4%) and item 6, 67 (45.6%).

The results suggest that the participants believed that the most complex part of learning Chinese is learning the Sound Similarities in oral communication. Following this, learning Chinese Characters are reported as the second most challenging part of learning Chinese. For the rest of items, 3, 5, 7 & 8, 1 and 6 respectively, the participants also represent a higher level of agreement than disagreement. Among the 8 items, item 6, Chinese Grammar is believed to be the least complex. Thus, it could be assumed that the participants agree with the total items in linguistic complexity theme as Chinese complexities.

Table 4: The Native Language Interference Theme

Theme 2		Likert's (Number & Percentage)				
No	Items	1 SD	2 D	3 U	4 A	5 SA
1	I think Chinese language is more difficult than my native language	10 (6.8)	8 (5.4)	18 (12.2)	60 (40.8)	49 (33.3)
2	Some of the barriers in Chinese learning are my native language structural differences	12 (8.2)	25 (17)	21 (14.3)	69 (46.9)	20 (13.6)
3	My native language always interferes with my oral Chinese learning.	18 (12.2)	43 (29.3)	19 (12.9)	50 (34)	17 (11.6)
4	When I come to difficult sentences in Chinese, I always think in my own language first and translate them into Chinese.	4 (2.7)	30 (2.4)	18 (12.2)	67 (45.6)	28 (19)

		15	34	15	66	17
5	While learning Chinese, I compare the sentence structure to my native language sentence structure	(10.2)	(23.1)	(10.2)	(44.9)	(11.6)

Table 5. The total means of Linguistic Complexities and Native Language Interference

Themes	N	Mean	Std. Deviation
Text Complexities	147	3.57	.670
Native Language Interfere	147	3.42	.705

To answer the second research question, whether the participants' native languages interfere learning Chinese, a descriptive analysis was conducted to show the frequency and percentage of the participants and their level of agreement in terms of every item in their native language interference. The statistics in Table 4 shows that the item in which the participants represent the highest level of agreement is item 1, 109 (74.1%). This shows that most of the participants thought that Chinese language is more difficult than their native languages. However, the item in which the participants show the lowest level of agreement is item 3, with frequency of 67 (45.6%). It means that there is an almost moderate level of agreement in the fact that the participants native languages always interfere with their oral Chinese learning.

As for the other two items, item 2 and 5 each shows 89 (60.5%) and 83 (56.5%) of agreement, respectively. These results suggest that the participants thought that native language significantly interferes in learning Chinese as a foreign language, specially through language structure. This is similar to what is highlighted in related research on the interference of native language on learning a second language by.....

In order to answer the third research questions, 98 participants were grouped by their native language backgrounds. They spoke 5 different languages: 32 Urdu, 20 Persian, 19 Spanish, 17 Arabic and 10 Swahili, as their native languages. A one-way ANOVA was conducted to calculate the mean difference among 5 different languages' groups. Tables 6 and 7 show the descriptive analysis as well as the output of ANOVA of the 5 different language groups, respectively.

Table 6. Descriptive statistics of the mean, standard deviation and confidence interval of the 5 different language groups

Descriptives									
Variables	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Min	Max	
					Lower Bound	Upper Bound			
Persian	20	3.6692	.61695	.13795	3.3805	3.9580	2.15	5.00	
Urdu	32	3.7452	.50628	.08950	3.5627	3.9277	2.62	5.00	
Arabic	17	3.5158	.39107	.09485	3.3148	3.7169	2.92	4.23	
Spanish	19	3.5749	.47720	.10948	3.3449	3.8049	2.69	4.62	
Swahili	10	2.9615	.84206	.26628	2.3592	3.5639	1.54	4.38	
Total	98	3.5769	.58356	.05895	3.4599	3.6939	1.54	5.00	

As shown in Table 6, Urdu has the highest mean of (3.7452). Following that Persian, Spanish and Arabic have lower mean, respectively. However, among the five languages, Swahili has the lowest mean of (2.9615).

Table 7. The output of analysis of variance (ANOVA)

ANOVA					
Variables	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	4.927	4	1.232	4.076	.004
Within Groups	28.106	93	.302		
Total	33.033	97			

Table 7 demonstrates there is statistically a significant difference between the groups as determined by the one-way ANOVA, $F(4, 93) = 4.076$, $p = .004$. A Bonferroni Post-hoc comparison was also carried out to show where the significant difference was among the groups. There was statistically a significant difference between Swahili and the other four languages. Swahili had a significantly lower mean than Urdu, Persian, Spanish and Arabic, respectively. However, the means of other four languages were different but not statistically significant from one another.

IV. Discussion

The current study aimed at finding international students' Chinese linguistic complexities as well as their native languages' interference in the process of learning Chinese. In addition, the study also explored whether international students with different native languages experienced the same linguistic complexities while learning Chinese. The result revealed that the participants indeed experienced a lot of linguistic complexities. Moreover, the result showed that the participants' native languages interfered the process of learning Chinese. The following are the issues that cause linguistic complexities and native language interference.

Learning sound similarities in oral communication is reported to be the most complex part of learning Chinese. The participants believed that among other complexities such as characters, grammar and tones, sound similarities in oral communication is the most complex part in this language. After sound similarities, learning characters are reported as the second most complex part. Thus, among the 8 items in the questionnaire, which demonstrate eight different complexities, the two above mentioned "Sound Similarities in oral communication and Chinese Characters" were reported to be the most complex parts of learning Chinese respectively. This result is somehow in line with Wang, Perfetti and Liu (2003) who claim that these challenges mainly came from lack of the same characteristics in the students' native languages. They further concluded that the large number of homophones in Chinese is another challenge that Chinese foreign language learners encounter.

As for native language interference, there were five items which demonstrate native language interferences. Most of the participants (74.1%) thought that Chinese is more difficult than their native languages. Following this, the result showed that the when participants came to difficult sentences in Chinese, they always thought in their own languages first and translated them into Chinese.

In terms of whether participants with different native languages background experienced the same Chinese linguistic complexities, the result of one-way ANOVA showed that Swahili language speakers experience the least Chinese linguistic complexities with a mean of (2.9615) while Urdu native speakers experienced the most complexities with a mean of (3.7452) among the five language groups. Following Swahili, Arabic with a mean of (3.5158), Spanish (3.5749) and Persian (3.6692) speakers were reported to experience lower Chinese linguistic complexity compared to Urdu speakers, respectively. However, there was no statistically significant differences between the means of Arabic, Spanish, Persian and Urdu.

V. Conclusion

Language complexities and native language interference are barriers which can create negative emotional and cognitive reactions and avoid language learners from taking required actions with regard to their learning

progress (Kim, 2011). This study aimed at highlighting Chinese linguistic complexities as well as international students' native language interference in China. The data was gathered through a thirteen-item survey questionnaire on Chinese linguistic complexities. The paper analyzed and discussed the major features related to Chinese linguistic complexities and native language interference. Out of eight linguistic complexities, Sound Similarities, learning Characters and Tones in Chinese were reported as the most major features of complexities in learning Chinese as a foreign language, respectively. However, for native language interference, the item in which the participants showed the highest level of agreement was the issue that Chinese is more difficult than their native language. Following this, the participants' thought of translating Chinese into their native language while facing a linguistic difficulty, was regarded as another interference.

As for the participants with different native languages backgrounds the result showed that participants who used Swahili as their native language experienced the least Chinese linguistic complexities while Urdu native speakers experienced the most complexities. However, there was no significant differences among the means of Arabic, Spanish, Persian and Urdu.

Limitations

One of the purposes of this study was to explore whether students with different language background experienced the same Chinese linguistic complexity. However, the number of Swahili language speakers who showed to experience the least complexities in this study was only 10, which is limited. Thus, future studies are suggested to include more languages with more participants to see which language speakers experience more or less linguistic complexities while learning Chinese.

Implications

Sound Similarities, Chinese Characters and Chinese Tones are as three main features related to Chinese linguistic complexities. Non-Chinese students are recommended to elaborate more on them, which will result in reducing the level of such linguistic complexities. In addition, Chinese teachers are suggested not to underestimate such complexities and also care for their students' native language interference. Moreover, future studies are also recommended to elaborate on what in first languages cause complexities in learning a second language.

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Assessment of the Quality of School Managers' Development as Determinant of their Effective Operations in Primary Schools

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Abstract

This study was designed to assess the effect of the quality of School Managers' development on their effective operations in schools. One hundred and twenty (120) school managers were drawn from the four (4) Local Government Areas (LGA5) under Lagos State Education District III South West, Nigeria. These include: Epe, Ibeju-Lekki, Eti-Osa, and Lagos Island. Thirty (30) School managers were selected from each LGA. T-test statistical analysis was used to analyse the data collected. The two (2) hypotheses formulated were analyzed at 0.05 level of significance. The result indicated that there was a statistically significant difference in the assessment of effective operations between school managers of high-quality development and those of low-quality development. However, there was no significant statistical difference among male and female school managers who were of high-quality development in their effective operations. It was recommended, among others, that continuous high-quality development and follow-up of school managers should be embraced or embarked upon by school supervisors to enhance continuous effective operations.

Keywords: Assessing Effective Operations, School Manager, School Manager Development, Assessing Quality of School Manager Development

INTRODUCTION

The quality of any educational system is mostly assessed by the performance of the systems products. The fact is that a greater percentage of the products of basic/primary education cannot stand on their own and contribute to the achievement of the national goals and objectives. (Oni and Jegede, 2016). This bothers on the effective operations of school managers to be able to impart positively on the people they work with.

There can never be any meaningful impact if the quality of school managers' development is low. In other words, effective operations/performance of any school manager is a function of the level of the capacity building acquired within a period of time-based on set goals. Joining this concern, Maduewesi (2005) suggested that it is more fitting to address the issue of quality rather than standard which is considered a subject of quality.

Quality refers to being able to meet customers' requirements either in terms of products (pupils) or in terms of service rendered by school/class managers (Aina and Oyetakin, 2015). It requires a continuum of worth, ranging from the highest levels of excellence to the lowest level.

Quality education, relatively, should be capable of improving the quality of the workforce by raising the levels of its skills and efficiency. In this connection, Lassa (2000) declared that measuring quality involves measuring outputs from the education system and at the same time examining the educational processes which produce these outputs. Part of the processes includes building the capacity of class teachers and school managers.

The United Kingdom through the Department for International Development embarked on a baseline survey of how heads of schools work "tagged head teacher shadowing" in selected schools in Lagos State. The report was that the school managers spent their days mostly on administrative matters. (Education Sector Support Programme in Nigeria/Department for International Development, 2009). In other words, school managers were not really providing leadership in teaching and learning. They were mostly engaged in attending to memos/circulars from the education authority, moving round just to sight teachers in the classroom or attending to parents/guardians.

Leadership training was organized severally for head teachers and their assistants. For instance, as parts of the efforts at attaining Millennium Development Goals (MDGs), the National Teachers Institute organized training for heads of schools and class teachers. Inductions were organized for newly appointed head teachers and their assistants by the State Universal Basic Education Boards and Local Government Education Authorities. There seemed to be no difference in the way school managers do their jobs.

Measuring quality from the input dimension, Babalola (2007) gauged the quality of education through pupils capacity plus motivation to learn and the curriculum (or the subjects to be learned). He equally inferred quality from the input side by identifying teachers who know how to teach and can actually teach, time for learning and the requisite tools for teaching and learning.

Examining quality from the process dimensions would recognize all the activities going on within the school. These include teaching and learning, leadership, planning and doing all things to meet pupils' needs. Combining inputs and processes involve include training and capacity building of school managers and classroom managers plus providing support as they utilize .training knowledge in schools. The amount and quality of human development and support may likely improve/enhance personnel effective operation. This implies that quality can mean desired or derived levels of attainment expressed in terms of input, process, and products in education. It was in this connection that Maduewesi (2005) examined quality in relation to education as a multifaceted issue which takes into cognizance, that entire place within the teaching-learning process and how they are managed so as to produce the desired outcome.

Gender of school managers may have an impact on the control and administration of the school. A male school head may have more energy and strength to demonstrate certain skills than his female counterparts. However, having more female school managers than male school managers in primary schools will give room for the enhanced and effective operation of schools (Jegade 2005). This may result from the fact that female school/class managers appear more compassionate while working with other personnel (staff/pupils) in the school/class than their male counterparts. Contrastingly, Adebanjo (2009) concluded that it provided the same environment, necessary motivation and monitoring, school heads under such team supervisors or inspectors (whether male or female) will likely perform well.

Apart from the aspect of achievement and standards and learners' personal skills and their participation, five key areas were focused in the report on quality assurance evaluation of some public schools below the tertiary level in 2011 and 2012 (Lagos State Ministry of Education, 2012). The five areas are (1) the quality of teaching and learning (2) quality of curriculum and other activity (3) the quality of care, guidance and support (4) the quality of Learning environment and (5) the effectiveness of leadership and management.

The overall effectiveness of quality assured 249 public nursery and primary schools was put thus: No (0%) school was outstanding, 75 (30.1%) schools were good, 166 (66.7%), fair, 8(3.2%) poor and no (0%) school was very poor. Quality assurance approach of schools was designed to assess the quality of education focusing on outcomes for learners (Lagos State Ministry of Education, 2012).

This paper investigated the effect of school managers' development/capacity building on their effective operations in primary schools. It, therefore, looked into and asked whether:

1. The quality of school managers development has any effect on their effective operations in schools or not
2. Gender of school managers has any effect on their effective operations in primary schools or not

Hypotheses

Considering the foregoing, the following hypotheses were formulated and tested at 0.05 level of significance:

1. There is no significant difference in the assessment of school managers of high-quality development and those of low-quality development in their effective operations.
2. There is no significant difference between male and female school managers' assessment in their effective operations in primary schools.

Method

Research Design: The descriptive research design of an *ex-post-facto* type was adopted. This was used for the purpose of collecting detailed and factual information that described the existing phenomenon, identify problems and justify current condition and practices; determine what others are doing with similar problems or situations and to benefit from others' experience in order to make future plans and decisions.

Population of the study: The population comprised the 188 school managers from the 188 public primary schools in the four (4) local government areas under Lagos State Education District III (that is Epe 78, Ibeju-Lekki 38, Eti-Osa 37 and Lagos Island 35), South West Nigeria (Lagos State Ministry of Education, 2013)

Sample and Sampling Techniques:

The sample comprised 120 school managers who were selected using multi-stage sampling technique. All the 20 school managers that have received high-quality development through training, follow-up, and support that is 12 male and eight (08) female schools managers were selected. One hundred (100), i.e. 42 male and 58 female school managers were also randomly selected out of the 168 school managers that have not been trained. A total of 54 male and 66 female school managers were selected for the study respectively.

The sampling was accomplished by collecting the list of schools and their head teachers from the four local Government Education Authorities (Epe, Ibeju - Lekki, Eti-Osa, and Lagos Island) All the 5 school managers from each LGEA totaling twenty (20) that have received capacity building, follow-up and support were selected. The remaining categories from the two groups were randomized having equal chances of being selected.

Instrumentation: Headteachers Effective Operation Scale (HEOS) was adopted from Jegede (2018) and used for the data collection.

This consisted of two sections A and B. Section A contains items on demographic information about the school managers' school, gender, e.t.c. While Section B measures the school managers' effective operations.

The reliability was re-established through the test-retest method by administering it to school managers in Mushin Local Government Area of Lagos State, Nigeria at a two-week interval and a reliability index of 0.78 was obtained. This affirms the suitability of the instrument for use in this study.

For the purpose of testing the two hypotheses, the mean scores were subjected to t-test statistics at 0.05 level of significance. The results are presented in tables 1 and 2.

Results

Table 1: T-test Analysis of School Managers' Effective Operations

Groups	N	X	S	DF	Cal t-value	t-critical value	Decision
High-Quality Developed School managers	20	11.5	1.83	118	88.84	1.960	Rejected at 0.05
Low-Quality Developed School managers	100	75.25	7.5				

As presented in Table 1, the calculated t-value of 88.84 which is greater than the critical t-value of 1.960 reveals that a significant difference exists between the school managers of high-quality development and those of low-quality development in their effective operations.

Table 2: T-test Analysis of Gender Differences among Schools Managers in their Effective Operations

Groups	N	X	S	DF	Cal t-value	t-critical value	Decision
Male School Managers	54	104	1.82	118	1.08	1.96	Rejected at 0.05
Female School Managers	66	119	1.92				

The result of the finding presented in table 2 revealed that the calculated t-value of 1.08 is less than the critical value of 1.96. This implies that no significance difference exists in the effective operations of male and female school managers in primary schools.

Discussion

The overall findings indicated that hypotheses one (H_{01}) were rejected while hypotheses two (H_{02}) was accepted. The significant difference that was found existing between the school managers of high-quality development and those of low-quality development in their effective operations was corroborated by some researchers when they concluded that trained and followed-up school heads are capable of working towards school effectiveness (Adebanjo, 2009. ESSPIN/DFID, 2009 and Jegede 2018).

In support of the significant difference that did not exist in the effective operations of male and female school managers, Babalola (2007) declared that heads of schools whether male or female working under the same ideal public service condition will delegate duties appropriately for effectiveness. It, therefore, indicates that gender among school managers will not raise or reduce effective operations.

Conclusion and Recommendation

School managers who regularly receive empowerment/capacity building and follow-up have been classified as having the ability to operate effectively in primary schools. The effectiveness of academic leadership and management will make learners attain achievement and standard in schools.

Based on the findings, the following are recommended:

- i. The state Universal Basic Education Boards (SUBEB) are to identify capacity building needs of all heads of schools and provide such with appropriate follow-up techniques.
- ii. For the purpose of enhancing quality through effective operations of school managers, officers from the Ministry of Education, SUBEB and Local Government Education Authorities (LGEA) should embark on

mentor-mentee relationships and techniques so that heads of schools will no longer see them, as fault finders.

- iii. All school managers are to work in line with the in-service training received 'and in accordance with the capacity building acquired cum experience found in their respective school locations.

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Investigation of Special Education Educators' Views on the Necessity to Apply the Institution of Mentor in Special Education and Training Schools

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Abstract

This paper explores the views of special education teachers on the necessity of introducing the institution of the mentor into the educational act. In particular, the knowledge, skills, and qualifications required by the mentor candidate for the more efficient functioning of the mentoring process are explored. The sample of the survey consisted of 143 special education teachers from the Region of Western Greece, while the data were collected through a questionnaire. The statistical analysis of the questionnaire data was performed using the statistical software SPSS Procedure 24. The survey results show that teachers recognize the importance of mentoring for their educational work and highly express their demand to import the institution in schools. They find it particularly important that the mentor should have knowledge of pedagogy, psychology and teaching methodology, in order to effectively exercise his role. Finally, factors such as the teaching experience and possession of relevant expertise the development of a cooperative framework and the modification of the curriculum, on behalf of the mentor guarantee a proper guidance process in the school unit.

Keywords: Guidance, Counselling, Mentoring, Mentor, Special Education Teacher

1. Introduction

The importance of a good start for the newcomer in his / her educational career is indicated in several surveys (Day, 2003; Wong, 2004). In addition to the overall support that must be offered to the new entrant by all staff, a particularly important approach to meeting their needs is the institution of the mentor.

More specifically, in the field of special education and training, the necessity of the institution of the mentor is bigger as teachers are called upon to play a complex role and to cope with difficult and varied situations. The teacher's role in special needs education is complex (teaching, therapeutic, supportive, consultative, administrative work, etc.) and thus heavily charged (Dedrick & Raschke, 1990; Zoniou-Sideri, 1998), creating feelings of intense emotional loading and exhaustion (Antoniou, Anagnostopoulou & Gaki, 2010). In addition, an important reason for establishing the institution of mentor in the field of education is the lack of training programs run by the Ministry of Education on issues related to special education and the day-to-day management of school reality, taking into account the real needs of teachers.

1.1 Defining mentor - mentoring

The word "mentor" has Greek roots and is met for the first time in Homer's *Odyssey*. In the modern educational literature, several definitions have been formulated for the concept of a mentor, which differ according to the emphasis given by each on the multiple properties of the mentor role as applied to the school environment. Andrews (1987), considers a mentor, an experienced teacher nominated or voluntarily undertakes to perform a supervisory, advisory, or sometimes evaluative role for the new-appointed teacher.

Also, many and different are the definitions given for the process of mentoring. Everyone, of course, accepts that this is a collective process where the people are taking part improve and get benefits at a practical and symbolic level (Valasse, 2015). Essentially, this is a relationship between old and novice teachers in order to offer stable and systematic support, assistance and guidance (Strong & Baron, 2004).

1.2 The qualifications of the mentor

In order to be able to respond effectively to the needs of his role, the mentor is required to have specific formal and substantive qualifications, appropriate skills and essential knowledge. The formal qualifications the teacher wishing to take on the role of the mentor should have are, the age, years of service, the leading position he may have and the prestige he holds (Athanasios et al., 2008). Several researchers (Boreen & Niday, 2003; Feiman-Nemser, 2012; Stanulis & Floden, 2009) consider it important that the mentor comes from the same school unit as the trainee because this way frequent communication between the two parties is achieved. In particular, mentor teachers must have: a) excellent knowledge of school life and all aspects of the teacher's work, b) ability to share their knowledge, c) ability to motivate work, d) ability to cooperate, e) a strong personality, f) knowledge of the basic stages of the professional development of teachers and g) knowledge of legal issues relating to the profession of teacher.

1.3 Effectiveness of the mentor relationship

The effectiveness of the institution and the relationship that develops between mentor-trainee during the program depends on various factors such as:

- The appropriateness and interpersonal characteristics of the mentor, the strategies he uses during the relationship, the preparation and the appropriate training he has taken before taking up his role and the environment in which the program is conducted (Hobson, Ashby, Malderez, & Tomlinson, 2009)
- The willingness of the learner to engage in mentoring procedures (Roehrig, Bohn, Turner & Pressley, 2008)
- The quality of the relationship that develops between the two parties (Bagakis, Tsigou, & Skorda, 2017)
- The mentor has a lot of free time, that will help to get prepared in order to take on this role (Abell, Hopkins, McInerney and O'Brien, 1995; Lee & Feng, 2007)
- Financial reward or some other form of recognition for the mentor's work (Simpson, Hastings, & Hill, 2007)
- The way they are matched with learners (Hobson et al., 2009). The lack of personal and professional bond between the two parties makes the relationship problematic.

1.4 Mentoring in the international and Greek educational reality

Since the 1980s mentoring plays an important role in the initial preparation, support and professional development of teachers in many parts of the world and many countries there is a massive increase in the number of formal mentoring programs for novice teachers. In the United States of America mentoring was the most widespread form of support for newcomers and used as a means of resolving the problem of dropout of educational work in several States (Heider, 2005).

In Greece the need to provide adequate support to new entrants during the first years of their service was recognized by the Ministry of Education and the law 3848/2010 establishes the support of newly appointed teachers through mentoring procedures. Unfortunately, however, due to the particular socio-economic conditions prevailing in the last decade in our country, this institution, was not supported either by the education community or the political leadership and was gradually abandoned.

2. Research Methodology

2.1 Purpose

The main aim of the research is to investigate the views and attitudes of teachers working in Special Education and Training structures regarding the institution of the mentor and the necessity of its implementation in the context of their educational work.

2.2 Research questions

Do the views of special education educators on the institution of mentor depend on their demographic characteristics?

Do the views of special education teachers in relation to the mentor's qualifications depend on their demographic characteristics?

Are the views of special education teachers regarding the correct implementation of the mentoring process in the special education unit dependent on their demographic characteristics?

2.3 The sample

The sample of the survey is made up of 143 Primary and Secondary Education Teachers belonging to the Regional Directorate of Primary and Secondary Education of Western Greece and working in special education schools. Specimen sampling was used to determine the sample (Creswell, 2011).

2.4 Data Collection

In the present study, a structured questionnaire was used which included closed format questions. The questionnaire, according to Cohen, Manion, and Morrison (2008), is an easy-to-use tool for collecting data for reviews as it: a) provides "frequently constructed numerical data"; b) enables it to perform without the researcher is "relatively easy to understand and easy to analyze" (p. 414).

2.5 Data Analysis

The coding of the data gathered from the questionnaire and their statistical processing was carried out with the statistical program SPSS 24, which is a widely used statistical analysis program in the field of Social Sciences.

2.6 Validity and credibility of research

The assessment of reliability was carried out in two ways: a) the process of granting and re-submitting the questionnaire at two different time points to the same participants after a sufficient period of time. Comparing the results, there were no significant differences between the questionnaires completed by each teacher. b) Cronbach's α (alpha) or internal consistency coefficient. An assessment of Cronbach's pointer was made for all 3 scales of the questionnaire, which was estimated at 0.89, which gives a particularly high level of reliability to the survey.

To ensure validity, the content of the questionnaire was first assessed by the supervisor to determine the extent to which the questions contained in it represent the area under study. Subsequently, the questionnaire was submitted to 15 teachers who could be part of the sample of the survey to determine the function of the questionnaire and possible problems in completing it.

3. Results

3.1 Demographic characteristics

The distribution of the sample in relation to the demographic characteristics is as follows:

- **Gender:** From the sample of 143 special education educators surveyed, 60 (42%) were men, and 83 (58%) were women.
- **Age:** 33 (23.1%) belong to the age group 22-30, 52 (36.4%) in the age group 31-40, 39 (27.3%) are between 41-50 and 19 (13.3%) are aged 51 and above.
- **Marital status:** 89 (62.2%) were married, 51 (35.7%) were single and 3 (2.1%) divorced.
- **School Service Unit:** 42 (29.4%) work in Special Vocational and Training Workshops, 33 (23.1%) in Integrated Special Vocational Middle – High Schools, 31 (21.7%) in Integrated Classes of General Education Schools, 13 (9.1%) in Parallel Support and 1 (0.7%) in Special Vocational High School. Also, 18 teachers work in Special Primary Schools (12.6%) and 2 in Special Kindergartens (1.4%) (Table 1).

Table 1. Sample distribution relative to sex, age, marital status, School served unit

		Frequency	Percent	Valid Percent	Cumulative Percent
Sex					
Valid	man	60	42.0	42.0	42.0
	woman	83	58.0	58.0	100.0
	Total	143	100.0	100.0	
Age					
Valid	22-30	33	23.1	23.1	23.1
	31-40	52	36.4	36.4	59.4
	41-50	39	27.3	27.3	86.7
	51 and above	19	13.3	13.3	100.0
	Total	143	100.0	100.0	
Marital status					
Valid	Married	89	62.2	62.2	62.2
	Single	51	35.7	35.7	97.9
	Divorced	3	2.1	2.1	100.0
Service unit					
Valid	Special Kindergarten	2	1.4	1.4	1.4
	Special Primary School	18	12.6	12.6	14.0
	Integrated Special Vocational Middle-High School	33	23.1	23.1	37.1
	EEEEK	42	29.4	29.4	66.4
	Integrated Classes in General Schools	31	21.7	21.7	88.1
	Parallel Educational support	13	9.1	9.1	97.2
	Special educational Vocational High School	1	, 7	, 7	97.9
	Other ..	3	2.1	2.1	100.0
	Total	143	100.0	100.0	

- **Conditions of Employment in special education schools:** 92 (64.3%) are full-time substitutes, 47 (32.9%) are permanent teachers, while only 4 (2.8%) are substituted for part-time work.

- **Teaching Experience:** 56 (39.2%) have 4-6 years of teaching experience, 36 have 5-9 years (25.2%), 22 have 10-15 years (15.4%), 19 have 16-20 years (13.3%), and only 10 have more than 20 years of experience (7%).
- **Working position in education:** 135 (94.4%) work as teachers, 2 teachers held the position of Deputy Director (1.4%), and 6 teachers were Directors (4.2%) (Table 2).

Table 2. Sample distribution in relation to the type of work, the didaktiki experience and mean education

		Frequency	Percent	Valid Percent	Cumulative Percent
Working relationship					
Valid	Part time Substitute	4	2.8	2.8	2.8
	Full-time Substitute	92	64.3	64.3	67.1
	Permanent Teacher	47	32.9	32.9	100.0
Teaching experience					
Valid	0-4 years	56	39.2	39.2	39.2
	5-9 years	36	25.2	25.2	64.3
	10-15 years	22	15.4	15.4	79.7
	16-20 years	19	13.3	13.3	93.0
	> 20 years	10	7.0	7.0	100.0
	Total	143	100.0	100.0	
Position of subjects in education					
Valid	Teacher	135	94.4	94.4	94.4
	Deputy Director of School Unit	2	1.4	1.4	95.8
	School Unit Manager/Director	6	4.2	4.2	100.0
	Total	143	100.0	100.0	

- **Basic studies and further training of the participants:** The total number of teachers, who participated in the research possess a university / TEI degree (100%). 76 (53.15%) hold a postgraduate diploma and 2 hold Ph.D. degrees (1.40%). In addition, 30 teachers have training of annual duration (20.98%), and 34 teachers have training in ICTs (23.78%).

3.2 Frequencies of the questionnaire scales

3.2.1 Frequencies of the scale "Need to Introduce the Institution of the Mentor in the Special Education Structures."

The 78% (MD=2.10 ± 0.87) of teachers advocates that mentoring is internationally one of the most effective practices in the development of teachers and for this reason, its implementation in Greece is also necessary.

The 86% (MD=1.73±0.88) recognizes its contribution to the guidance and encouragement of newly appointed teachers in the early stages of their educational career in teaching and daily practice within the school.

The 81% (MD=1.92±0.82) claims to a high degree that the introduction of mentoring in school units is necessary to support the entire educational community regardless of teaching experience.

The 90% (MD=1.57±0.72) indicates that the institution of the mentor provides opportunities for high-quality learning.

The 85% (MD=1.90±0.85) of teachers think that mentoring as an effective support and development process for the teacher can help improve the quality of educational work within the classroom.

3.2.2 Frequencies of the scale "*Qualifications for the mentor candidate.*"

As far as the mentor level of knowledge is concerned, an important qualification is considered:

- the knowledge of Pedagogy (71 %, MD 1.34±0.58)
- the knowledge of Psychology (61%, MD 1.49±0.71)
- the knowledge of Teaching Methodology (60%, MD 1.52±0.73)
- the training in the use of ICT (74%, MD 2.13±0.95)
- the existence of postgraduate and doctoral studies (75%, MD 1.98±0.96)
- experience in mentoring programs, (78%, MD 1.97±1.02)
- the adoption of adult learning principles (79%) and participation in innovative actions and programs (78%).

Regarding the required skills the mentor candidate must develop:

- be cooperative (99%, MD 1.20±0.42)
- be communicative (100%)
- be flexible (97%)
- be receptive to the adoption of new ideas (97%) and innovative programs (95%)
- to adopt an active listening (96%) and show respect and honesty to the mentee (98%).

Additional qualifications of a mentor are:

- multi-year teaching experience (82%)
- the follow-up of training seminars of the Ministry of Education (51 %) and the program of ASPAITE (50%).

3.2.3 Frequencies of the scale "*Conditions for proper implementation of the mentoring process in the special education unit.*"

The prerequisites for the proper implementation of the mentoring process in the special education unit according to the views of the teachers are:

- acceptance by the educational community (77 %, MD=1.91±0.90)
- Pilot implementation of the mentor institution (77%, MD =1.94±0.84)
- selecting the teacher mentor through meritocratic procedures (68%, MD = 1.51±0.91)
- delimitation of mentor responsibilities (61%, MD=1.53±0.79)
- quality of mentor education (65%, MD=1.51±0.84)
- cognitive background and mentor skills (52%, MD = 1.60 ± 0.73)
- the aspirations of the mentor for co-operation (62%, MD=1.48±0.72)
- dissociation of mentor's work from educational assessment processes (77%, MD=1.87±1.12)

- the trainee's enthusiastic voluntary involvement in mentoring processes, (74%, MD=2.09±0.82)
- promoting the institution through analytical school curricula (39%, MD=2.23±0.92).

3.3 Correlations between the scales and sub-questions with the demographic characteristics of the questionnaire

Next, the correlations of the demographic characteristics "Gender," "Teaching Experience," "School Unit" and "Relationship of Labor" are listed with each of their scales and sub-questions.

Regarding the influence of **gender** on the scale of "**The necessity of introducing the institution of a mentor in special education structures**," male teachers appear to be more positive in organizing and implementing mentoring in the school context they work (80.64) than their female colleagues (65.75) (table.3).

Table 3. The necessity of introducing the institution of mentor to special education structures and gender

SCIENCE A Need to introduce the institution of the mentor in the special education institutions	Sex		p-value
	Man	Woman	
	Mean Rank	Mean Rank	
SUM	80.64	65.75	0.033

Regarding the impact of variable **teaching experience** on the scale of "**Necessity to Introduce the Institution of Mentor in Special Education Structures**," teachers with a teaching experience of over 20 years seem to have a more positive attitude in the implementation of mentoring at school. In addition, these teachers consider to a greater extent than their other colleagues, that the implementation of the institution has beneficial effects, both for beginners and for the most experienced teachers, and that the institution is necessary because it offers quality education to students.

Table 4. The necessity of introducing the institution of mentor to special education structures and teaching experience

CLIMATE A: The necessity of introducing the institution of the mentor to special education structures	Teaching experience					p-value
	0-4	5-9	10-15	16-20	20 <	
	Mean Rank	Mean Rank	Mean Rank	Mean Rank	Mean Rank	
SUM	61.53	69.18	85.50	80.29	95.35	0.039

Regarding the effect of the variable "**School Unit**" on "**The necessity of introducing the institution of a mentor in the special education structures**" it appears that the teachers working in the Integration Department appear to have a more positive attitude in the implementation of mentoring at school.

Table 5. The necessity of introducing the institution of the mentor to special education structures and the school unit

CLIMATE A: The necessity of introducing the institution of the mentor to special education structures	School unit								p-value
	Special Kindergarten.	Special Primary School	ENEEGYL	EEEEK	Integration Classes	Parallel Sypport	EEG	Other..	
	Mean Rank	Mean Rank	Mean Rank	Mean Rank	Mean Rank	Mean Rank	Mean Rank	Mean Rank	
SUM	54.5	70	66.92	82.32	83.18	41.96	47	50.67	0.04

In addition, the effect of the "Labor Relations" variable on the "Need to Introduce the Institution of the Mentor in Special Education Structures" ($p = 0.022$) was statistically significant. In particular, permanent teachers support a greater degree, the need to develop counseling services in the school where they work. So, based on the perceptions of permanent teachers, it is considered necessary to co-operate and provide their counseling assistance to their newly appointed colleagues (78.57, $p=0.05$) and to promote the institution of the mentor in the provision of counseling in the school educational staff (83.20, $p=0.042$). Moreover, mentoring is supported by the majority of permanent teachers as a necessary process for the professional development of both beginners and experienced teachers (78,36, $p=0,003$) and contributes positively to the production of quality upgraded educational work.

Table 6. The necessity of introducing the institution of the mentor into the special education and work relationship structures

CLIMATE A: The necessity of introducing the institution of the mentor to the special education structures	Work Relationship			Permanent teacher Mean Rank	p-value
	Part time Substitute Mean Rank	Full-time Substitute Mean Rank			
A. It is a fact that mentoring is considered internationally one of the most effective ways of professional development of teachers and should, even with the delay, be applied to the educational system of our country.	70.50	68.40		79.17	0.267
B. The newly appointed teachers in the early stages of their educational career need support, guidance, and encouragement from a more experienced colleague who will advise them on teaching and daily practice within the school.	34.00	70.29		78.57	0.050
C. Since the institution of the school counselor is preserved in school practice, I think it is an exaggeration to set up another similar institution, such as a mentor, in the difficult economic conditions of our country.	74.25	66.18		83.20	0.042
D. The introduction of a mentor institution into domestic	66.75	64.38		87.36	0.003

educational practice should not only concern the support of newly appointed teachers but the reinforcement of all teachers in a school, as experienced teachers can improve not because they are not good enough, but because they can be even better.

E. In the early years of my training career, I had the support of experienced colleagues who voluntarily helped me to complete my teaching and extra-curricular duties.	44.88	70.78	76.69	0.281
F. The high-performance education system should provide the educational staff high-quality learning.	55.75	72.05	73.29	0.658
G. Mentoring as an effective support and development process for the teacher can help to improve the quality of educational work within the classroom.	54.25	68.36	80.63	0.121
H. I consider it necessary to apply in practice the institution of the mentor for the newly appointed teacher in the Greek educational system, as it has already been voted in accordance with Law 3848/2010	87.88	66.47	81.47	0.065
SUM	54.50	65.91	85.41	0.022

The statistical processing of data and execution of correlations resulted in a statistically significant effect of demographic characteristics "**Sex**," "**School unit**" and "**Employee**" with the range "**Qualification of the mentor institution in SNE structures**," which includes "Knowledge," "Skills" and "Other Qualifications" sub-scales.

In particular, the variable "**sex**" in scale "**Qualifications of the mentor institution in special education structures**" shows teachers male to have on average the highest degree in scientific fields which they consider should be held by the prospective mentor like psychology (83.10, $p=0.002$), ICT training (76.42, $p = 0.042$), postgraduate and doctoral studies and previous experience in mentoring programs (80.78, $p = 0.021$).

In addition, the effect of the **gender** variable on the **skills** sub-scale was statistically significant regarding the qualifications deemed necessary by the teacher mentor ($p = 0.042$). In particular, male educators have a higher tendency to develop specific skills on the implementation of mentoring than female educators.

The variable "**school unit**" on the scale "**Qualifications of the institution of the mentor in special education structures**" shows that the teachers of the Special Kindergartens argue that the presence of research work and articles (112.25, $p=0,008$), experience in counseling guidance programs (102.75, $p=0.009$) and in innovative research programs (95.00, $p=0.038$) significantly enhances the mentor's mentoring role.

Also, there is a correlation between the variable "**School unit**" and the scale "**Conditions for proper implementation of the mentoring process in special education school unit**." Specifically, teachers who work in Special Vocational High Schools focus on four criteria for the effective implementation of the teaching mentor project. These are including the recognition of the value of the application of the mentor institution on part of the educational community (84.50 $p=0.014$), the amendment of the detailed curriculum (111.50, $p=0.033$), appropriate training of candidate mentors (110.50, $p=0.040$) and the appropriate matching mentor-mentee (126.00, $p = 0.006$). On the contrary, the teachers of Primary education focused on issues of meritocracy in the teacher mentor selection procedures (82.86, $p = 0,021$) and on the separation of the assessment procedure and the implementation of the mentoring guidance (126.00, $p=0,040$).

4. Discussion

Research results show that teachers have a high level of conceptual perception of mentoring, strongly reflecting their demand for the introduction of mentoring in schools, while recognizing the positive influences of a) the educational maturity of novice teachers, b) the professional improvement of the most experienced, c) the provision of quality teaching to students and the development of qualitative performance skills by teachers, d) the enrichment of the knowledge acquired during their university studies and e) strengthening of insightful thinking and generating ideas with orientation in training new mentors in Special Schools. The above conclusions are consistent with findings from the international literature (Babione & Shea, 2005; Billingsley, 2004; Hobson et al., 2009).

From the statistical processing of the data, it was also found that the gender of teachers is an essential parameter that determines their perceptions and attitudes about their intention to satisfy their mentoring training needs for their contribution to psycho-emotional support for teachers, the relationship with the mentor teacher, the design of educational programs, and the influence of mentoring on the quality of the educational project. More specifically, according to the findings of the survey, it was revealed that male teachers expressed more positive attitudes towards the need to apply the institution of a mentor in the school environment, aiming at the psychological strengthening and resistance of teachers. This conclusion is in contradiction with the data from the international literature, according to which women teachers argue that monitoring mentoring programs is particularly effective for their colleagues. Also, the results suggest that experienced teachers appear to have a clearer view of the need to apply mentoring to the school environment and were in favor of its positive influence on all teachers of the school community. In the international literature, there are presented studies (Hanson & Moir, 2008; Gschwend & Moir, 2007) demonstrating the beneficial effect of mentoring on the careers of experienced teachers, which are consistent with the findings of our investigation and inquiries where teachers with less working experience showed more positive attitudes towards attending mentoring educational programs than their more experienced colleagues (Aspfors & Bondas, 2013; Billingsley, Carlson, & Klein, 2004a; Devos, 2010; Hobson et al., 2009).

The permanent teachers surveyed expressed more positive views regarding the presence of Special Education mentor in the school unit in comparison with their colleagues who were employed as part time or full time substitute teachers underlining the need for counseling in the professional development of all teachers of a school unit, while pointing out the importance of counseling to young teachers. This conclusion is in line with research findings from the international literature (Dempsey, Arthur-Kelly, & Carty, 2009; Ewing & Manuel, 2005).

As far as the qualifications must have mentor teachers recognize highly the cognitive characteristics that the Mentors should have while regarding the required skills, the teachers' knowledge also accounted for a very good level. The above findings are identified with research findings by Martschinke et al. (2004), where teachers were found to be well aware of the cognitive characteristics the teacher must have in order to be effective in his counseling work. The statistical processing of the questions revealed that the gender of teachers was a predictive factor of perceptions about the cognitive characteristics and skills of the mentors. Specifically, men appear to have more knowledge about the skills of mentors, such as psychology, ICT and postgraduate studies.

The majority of teachers believe that there are a number of factors that are a prerequisite for mentoring teachers to express their particular abilities and the effectiveness of their work. Such parameters are the possession of specialized knowledge, the development of a cooperative framework, the modification of the curriculum, the mentoring experience of the mentor, the appropriate matching of mentors and mentee, etc. From this research, it can be seen that the application of guidance counseling techniques attracts the interest of teachers by overcoming through mentoring the fears, the anxiety or the insecurity often caused by the "disturbing" behavior of the pupils in the room.

The results of this study are consistent with the findings of international literature that the need for knowledge and skills development by mentors is considered not only to be important but also indispensable (Amos, 2005; Gagen & Bowie, 2005).

Completing research and studying the outputs of the need for further investigation emerges. In particular, a future survey could include a larger sample of all educational regions in Greece in order to produce safer conclusions. In addition, further research could include Special and General Education teachers, in order to compare and evaluate the knowledge and perceptions of these two groups regarding the institution of the mentor. Exploring the views of special education teachers on the use of mentoring in the context of their educational work compared to the views of general-class teachers is an interesting issue to be explored. It is also important to determine the degree of impact of the effective implementation of mentoring in general in the field of education.

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Assessment of Quality Assurance Practices in Colleges of Education in Akwa Ibom and Cross River States, Nigeria

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Abstract

This study assessed quality assurance practices in Colleges of Education in Akwa Ibom and Cross River States, Nigeria. Three null hypotheses were formulated to guide the study. The survey research design was adopted for the study. The population of the study comprised ninety (90) Heads of Departments and Deans of Schools in the three Colleges of Education under study. Census sampling was used to select the sample size of 90 Heads of Department and Deans of Schools. To test the three hypotheses, data was generated using an 18-item questionnaire titled "Assessment of Quality Assurance Practices Questionnaire" (AQAPQ). The instrument was validated by experts in Educational Administration and Planning, and Measurement and Evaluation. The reliability of the instrument was established using Cronbach Alpha reliability method with the results ranging from .76 to .85. Population t-test analysis of single mean was used for data analysis. The results of the analysis revealed that quality assurance variables such as maintenance of infrastructure and students' admission policy were significantly low, while curriculum implementation was not significantly low in Colleges of Education in Akwa Ibom and the Cross River States. It was concluded that quality assurance practices in Colleges of Education in Akwa Ibom and the Cross River States, Nigeria were high in curriculum implementation, while in the maintenance of infrastructure and students admission policy, it was low. Based on the findings, it was recommended among others that, administrators of Colleges of Education should endeavour to ensure that quality assurances are effectively practiced to achieve the desired results.

Keywords: Assessment, quality assurance practices, Colleges of Education, Akwa Ibom and the Cross River States

Introduction

Education is a process that starts from birth to adulthood and ends when the person dies. It equips individual with societal norms, knowledge, and skills for self and national building. The knowledge and skills acquired when properly utilized leads to national development. However, Dauda, (2010) sees education as an investment in human capital development which yields positive results in higher institutions of learning world over.

According to the World Bank, (2003), it is a factor in Nigeria's expedition to become one of the principal economies and the strongest weapon against poverty. Nigerian education is categorized into three main stages

which are primary, secondary and tertiary institutions. According to the Federal Republic of Nigeria (2004) tertiary education means the third stage of education that takes place after secondary education

The main function of the tertiary institution is to solve manpower problems. They are set up to prepare the individual for job performance in the civil services, business organizations and private enterprises, through the inculcation of the necessary knowledge and skills. But from a national point of view, Colleges of Education have not been able to live up to this expectation.

However, according to Adedipo, (2007) tertiary institution is guided by quality assurance practices such as curriculum implementation, admission policies, maintenance of infrastructural facilities, which serve as a mechanism to achieve educational goals. According to Okebukola (2004,p.14) "quality assurance is avoidance of error on students or individuals undergoing studies in colleges of education or tertiary institutions as a whole, ensuring that they came out with knowledge and skills needed to meet up with the needs of the society". This implies that when the input is adequately supplied and utilized, products of tertiary institutions will be well equipped and focused on their educational activities. Babalola (2004) encouraged the best use of quality practices in tertiary institutions for a good turnout.

In this study, quality is a degree to which a task is excellently performed, meaning how excellently, educational tasks are performed. Achieving quality, therefore, calls for motivating teachers and students for improvements in education. It is on this note that Ajayi and Adegbesan (2007) saw quality as an aspect of teaching-learning and students' performance to achieve educational objectives. Quality assurance is meeting or maintaining standards in the utilization and management of resources, the processes of utilizing them to meet the required standard and ensuring that the output satisfies the expectations of people.

According to Ehindero (2004), objectives of establishing quality assurance in schools include: quality control strategy in education, uniformity in the standard of education at all levels, educational supervision, professional qualification of the teacher, the number of classrooms and class size, availability of educational facilities, and proper utilization of financial resources. If all these factors mentioned are met, the educational organization at the College of Education level will be highly productive.

With regards to education, Arikewuyo (2004) viewed quality in education as the performance of students in examinations and the importance attached to the needs of students in society. However, quality assurance is associated with quality control because it is the method used to ensure that what is needed is achieved with a focus on results and standard. In the institutions (Colleges of Education), quality assurances practices have not produced the expected results, and it is on this note that the main concern of this study is the assessment of the extent of quality assurance practices associated with maintenance of infrastructure, students' admission policy and supervision of instruction.

Statement of the problem

Tertiary institutions no matter their classifications strive to maintain a high degree of excellence in their academic programmes. The high degree of excellence is determined from the quality of their products (graduates). As a result of this desire, tertiary institutions embark on several practices to realize this goal. These practices include the maintenance of infrastructure, adherence to students' admission policy and supervision of instruction. From observation, these practices have not been effectively carried out. Instances of dilapidated infrastructure, poorly maintained classroom and office blocks and broken tables and seats; non-adherence to carrying capacity in students' admission, and poor placement of students in terms of courses of study; irregular supervision of lecturers' instructional activities and poor supervision of students' work amongst others, abound. These have negatively affected the quality of students produced at Colleges of Education.

On this note, there have been public outcries about the quality of graduates of these tertiary institutions. In some cases, the graduates have been adjudged to be poor as a result of their inability to defend the certificates they hold. More so, some of the students after graduation are not able to showcase what they learnt when occasions warrant such. The problem of this study was therefore conceptualized in this question: what is the extent of

quality assurance practices in Colleges of Education in Cross River and Akwa Ibom States, Nigeria, with regards to maintenance of infrastructure, adherence to students' admission policy and supervision of instruction?

Statement of hypotheses

To guide this study, the following hypotheses were formulated:

- 1) Quality assurance in the maintenance of infrastructure in Colleges of Education is not significantly low.
- 2) Quality assurance by adherence to students' admission policy in Colleges of Education is not significantly low.
- 3) Quality assurance in the supervision of instruction in Colleges of Education is not significantly low.

Literature review

A number of studies were reviewed to give backing to this study. They were presented in sub-headings.

Maintenance of infrastructure in Colleges of Education

Jonathan and Kayode (2010) carried out a study on school facilities in colleges of education in Nigeria and came out with the findings that no school can thrive well without the use of school facilities. This implies that facilities such as essential amenities, structures, equipment, fittings, and school materials are essential in boosting performance in schools. They are very important in that, and they facilitate student's learning. One of the challenges facing colleges of education today is insufficient facilities needed in order to teach the students to become quality graduates (Yahoo, 2011). This implies that Colleges of Education in Cross River and the Akwa Ibom States lack school facilities especially in the field of sciences. It is noted that chemistry, physics and biology students of the colleges cannot excel without practical works. From observation, it is disheartening to know that the laboratory equipment of these colleges is not adequate, thereby hindering proper teaching and learning. According to Akpochofo and Filho (2007), poor maintenance of facilities and equipment are clearly seen in insufficient classrooms and broken seats. It is a condition whereby classrooms and chairs are not enough for students. This actually distorts teaching and learning in colleges of education.

Okoro (2007) sought to determine maintenance of faculties and academic quality in tertiary institutions in Abia and Akwa Ibom states. The study tested three hypotheses at .05 level of significance, with a sample of 108 administrative officers of two institutions using purposive sampling technique. A 32- item adapted questionnaire was administered to the respondents. The statistical analyses used were simple and multiple regression analysis. The result showed that facilities such as school libraries, hostel accommodations, and classrooms were not sufficient for students' use. Oranu, (2004) in the same vein complained about the absence of physical facilities in colleges of education. This implies that the lack of teaching tools for science and technology subjects hinders students' growth. On this backdrop, Nwana (2000) is against the inadequate supply of facilities in schools; an attitude which leads to low level of educational standard in the country. In line with this, Akuegwu, Nwi-ue, and Agba (2008) posited that higher institutions had not produced the number of quality graduates needed for the Universal Basic Education (UBE) programme due to inherent problems in their infrastructural facilities, quality of their instructions and students evaluation. This call for attention to be given to educational facilities to enable students of higher education perform well to meet societal expectations. Federal Republic of Nigeria (2004) on the other hand, admitted the awareness of government on a limited supply of facilities. Under this condition, educational goals cannot be achieved because teaching and learning cannot succeed without sufficient facilities to carry out the teaching work. Akinola, (2007) carried out research work on coping strategies and infrastructural deprivation by means of collective action amongst colleges of education in Nigeria and came up with the discovery that the inability of the government to properly address the problem of infrastructure particularly in colleges has led to the poor academic performance of students. The result further explained that most school management authorities find themselves producing poor quality graduates that cannot withstand the taste of time and compete effectively in the labour market. Fakayode, Omotesho, Soho, and Ajayi, (2008) examined the place of infrastructures in colleges and found out that the state of infrastructure is critically poor in terms of bad roads, electricity, library, and laboratory in colleges and therefore called on a state of emergency in the educational sector.

Jajac, Knezic, and Marovic, (2009) conducted a study on the maintenance of school facilities and quality output among students. Four hypotheses were formulated and tested at .05 and .01 levels of significance. A sample size of 210 was used in the study. An adapted 34 - item questionnaires were validated and administered to the respondents for data collection. The statistical analyses used were independent t-test and One-way analyses of variance (ANOVA). The finding showed that maintenance of infrastructure is a complex task that is even more difficult with taking decisions to prioritize aspects. The finding identified several factors that contribute to the deplorable conditions of colleges of education in Nigeria. These include inadequate government intervention, no sense of ownership by stakeholders, inadequate funding, and vandalism. Furthermore, lack of maintenance, neglect, deferred maintenance, and overcrowding were also identified. A multi-stakeholder framework for the proper maintenance of colleges of education infrastructure is proposed to eradicate existing poor conditions.

However, it is clear that the lack of maintenance of school facilities occur due to financial paucity. As a result, school facilities are not properly equipped and maintained for teaching and learning tasks. Even where these facilities are, there exists a high cost of maintaining them. An example of poor funding was where only 6% budgetary allocation was made to education which was not enough for the provision and maintenance of educational facilities. Osakwe (2009) reported of insufficient allocation given to tertiary institutions in Nigeria which hinders the provision of school amenities for students' learning. At this juncture, lack of facilities in schools can be compared to a farmer without a working tool. As such, lack of facilities in schools hinders effective teaching and learning.

Edwards, (2002) conducted a study in the District of Columbia school system and came out with the findings that students' academic achievements did not meet the set standard. Cash (2013) examined the level of maintenance culture of school infrastructure like furniture in Virginia Colleges of Education and came out with the findings that poor achievement was associated with lack of proper maintenance of school infrastructures. Similarly, Hines' (2006) conducted a study of urban colleges of education in Virginia and the relationship between quality assurance in terms of building condition and student achievement. He came out with the findings that students' achievements were (11%) percent lower in substandard buildings than students' achievements in excellent buildings.

Corcoran, Thomas, Lisa, Walker, and Lynne (2008) sought to determine the effect of infrastructures on quality job performance among staff in California. Two hypotheses were formulated and tested at .05 level of significance. A sample size of 674 was also drawn from the population of all public staff in the state. A 33- item questionnaire was constructed, validated and administered to the respondents. The statistical analysis used was Pearson's Product Moment Correlation analysis and simple regression analysis. The result showed that building renovations in one district motivated teachers to work.

Students admission policy in Colleges of Education

The admission policy is a guiding principle that confirms the stipulated number of students to be admitted to higher institutions of learning based on their academic abilities and potentials. They are trained to acquire skills and talents so as to teach future managers in nursery and primary schools, at the same time, prepare them for secondary education. It is on this note that the FRN (2004, p. 36) stresses that "acquisition of physical and intellectual skills to enable individuals to be independent and useful members of the society, contribute to national development through high-level relevant manpower training and develop the scholarly ability of individuals to appreciate their local and external environments" are part of the goals of higher education. In the time past, there was no policy guiding students' entrance into tertiary institutions. During this period, institutions set up their own academic standard which led to varieties of standards. This happened because there was no quality assurance method. Thus, institutions used that as an opportunity to satisfy their individual desires (Nwogwu, 2003).

However, admission policy came into existence in 1989 when the National Commission for Colleges of Education (NCCE) was established (NCCE, 1993). Ehiamezor, (2005) carried out a study on the problems of

admissions into Nigerian colleges of education and came out with the findings that the policy led to poor academic performance. They are:

1. Catchment area policy: This policy stated that admission percentage should be preserved for the indigenes.
2. Backwardness factor: This required a reservation of admission percentage to educationally disadvantaged areas (states).
3. Quota system: Demanded consideration of admission based on population and ethnic group
4. Fee discrimination: Created room for lower fees charges on the indigenes where higher institutions are domiciled.

Onwuka, (2001) is against this policy as it leads to a reduction of admission standards and gives room for unmerited candidates to be admitted into colleges of education in Nigeria. Therefore, the method of giving consideration to indigenes in terms of admission has consequently reduced education quality in Nigeria.

Ndiomu (2009) frowned at the quota system of admitting candidates into tertiary institutions by the federal government because it gives room for inequality and low standard of education. This method is an indication of non-adherence to a standard point in each state or country. For instance, a candidate from a particular state may score sixty-five (65%), and yet he or she is not admitted due to higher scores by students from the same state. On the other hand, a candidate from another state may also score forty-five (45%) then he or she is given admission because few candidates from that state scored above forty-five (45%). This simply means that the process of admitting students into Nigerian colleges of education has some in-built problems that prevent the most qualified candidates to be offered admissions. Adejo in Ndiomu, (2009 p. 13) states that "this situation consequently affects the quality of colleges of education in these institutions."

Onwuka (2001) is of the view that equal opportunities of admission into tertiary institutions should be given to all candidates irrespective of their educational backgrounds and catchment areas. Hence, the quota system showing the specific candidates needed should be approved by each state. Yoloye (2000) complained about inequality in the Nigerian system of education when pointing to a quota system as a "reasoned compromise" dependent on origin. However, requirements for entry into Nigerian colleges include age, credits passed, catchment area and student's performance. Yet, there are still complains of admitting unmerited candidates into the system.

Research carried out by Asuru (2002) on implications of examination malpractice for sustainable development reported that students who took part in examination malpractice were the unqualified candidates who did not meet up with the admission requirements. Another violation of admission requirement which leads to a low standard of education is the report made by Ugwunga in Onyishi, (2007) that 34.9% of candidates were enrolled into colleges of education in sciences against the stipulated policy of not less than sixty (60%). Based on poor academic standards and non-restriction to admission policy, Mohammed and Iyele in Israel and Israel (2014) attributed low academic standard to unqualified candidates admitted into Nigerian colleges of education. This attributes demands strict adherence to admission policy, for quality and high standard to be achieved in Nigerian colleges of education.

Supervision of instruction in Colleges of Education in AKS and CRS

Hommock and Owing (1980) affirmed the significance of supervision in terms of organization of learning programmes, methods of evaluation, teaching methods, students' progress, curriculum contents, staffing procedure and availability of resources. Eye, Netser and Kenel, (2001) saw supervision as a stage of school administration, focused mainly on the attainment of the appropriate instructional expectation in colleges of education. Thus supervision can be perceived as a process of monitoring the policies, principles, and objectives of the institution in order to achieve set goals. It also involves the application of experts' knowledge and experience to supervise, evaluate and cooperatively improve the conditions and methods of instructional programmes in teaching and learning processes. According to Mbiti (2004) supervision is one of the tactics of efficient and proper management, and so can be regarded as the nervous system of an educational organization.

Ozigi (2007) insisted that the essence of supervision is to have a comprehensive view of the activities and problems of instruction and to assess the extent to which it is fulfilling its basic obligations; the ultimate aim is to improve the overall efficiency and raise the academic standard of colleges. Supervision of instruction enhances effective teaching and learning, resulting in the achievement of educational objectives. It enables teachers to become acquainted with sources of aids in solving their instructional problems (Fasanmi, 1986). Accordingly, supervision of instruction among other things exists for the purpose of improving instructions through necessary concern for the teaching and learning conditions of students. Supervision of instruction helps in ensuring that educational policies and laws are properly enforced so that students' performance objectives in nature, creative and systematic in approach are realisable. It also promotes the spirit of finding out facts through experimentations and continuous evaluation.

From the foregoing, it is pertinent to note that effective supervision of instruction by school administrators will help strengthen lecturers' morale to contribute meaningfully to the high academic performance of students. For students' to succeed they need to be guided. At this juncture, teachers or lecturers are vested with the responsibility of supervising students' activities such as; attendance in class, assessment, examinations, and projects. By so doing, lecturers can provide meaningful feedback to the school management through students' output and at the same time encourage the weak students to work effectively. This is imperative because students learning are the primary function of the school in order to fit into societal demands (the Federal Republic of Nigeria, 2004). However, students' success is dependent upon teachers' skilful delivery. To achieve this goal, standards should be maintained on the type of instructions, lesson plans, and teachers encouraged to seek information from reliable sources before embarking on the lesson.

Ogunsaju (2009) in an empirical study on the role of supervision on organization found out that, effective supervision serves as a mediator between the people and the programme. Studies by Eya and Leonard (2012) with college students in Zaria, found that effective supervision help teachers to improve their instructional competencies. Ogunsaju's (2003) empirical studies with 200 college administrators on supervisory outcomes found out that the qualities of effective supervision must include honesty, objectivity, fairness, and firmness in assessing educational problems with a view to finding lasting solutions in order to promote students' centred teaching and learning.

Obilade (2001) opined that instructional supervision is a helping relationship whereby the supervisor guides and assists the teachers to meet the set targets. Thus, the focus of instructional supervision should be on establishing the relationship with stakeholders in the school system for the purpose of achieving set objectives. In the same vein, Olaniyan (2009) conducted a study on the role of instructional supervision in the college of education with final year students as subjects and came up with the findings that instructional supervision serves as a means to help, guide, stimulate and lead teachers improve in their teaching procedures.

It has been observed that instructional supervision is an essential activity for the effective operation of a good school system. It is a practice officially designed to improve teachers' behaviour to facilitate student learning and effective goal attainment of schools. Effective supervision of instruction involves supervisors' ability to reinforce teachers to improve students' learning. Therefore, supervision of instruction if effectively carried out will enhance the behavioural change of teachers and boost students' performance.

Aderonmu and Ehiamentor in Kiadese (2000) identified roles of supervisors in the school system as planning, staffing, coordinating, observation and curriculum development. These are evidence that the role of the supervisor in a school system especially in colleges of education in Nigeria is very crucial.

In Nigeria, tertiary education, especially at college level, occupies a unique position among lower levels of education, and so, supervision must focus on improving lecturers' instructional delivery. It is only when lecturers are masters of their trade that they can produce tangible results in training quality students well equipped with knowledge, experience, aptitude, and skills to transform primary and secondary education.

Methodology

This research was carried out in Akwa Ibom and the Cross River States situated in the South-South Geopolitical Zone of Nigeria. There are two state government-owned colleges of education in these states with one federal government owned college. The survey research design was adopted for this study. The population of the study consisted of ninety (90) Heads of Departments and Deans of schools otherwise known as institutional heads in the three Colleges of Education studied. The sampling technique adopted for this study was census sampling where all the subjects were constituted into the sample.

To test the three hypotheses, data was generated using a questionnaire titled "Assessment of Quality Assurance Practices Questionnaire" (AQAPQ). The instrument had 18 items, 6 of which measured each of the 3 variables studied. The instrument was validated by 2 experts in Educational Administration and Planning and 2 experts in Measurement and Evaluation. The reliability of the instrument was established using Cronbach Alpha reliability method with the result ranging from .76 to .85, an indication that the instrument is reliable in achieving the objectives of this study. The researchers administered the instrument with the aid of 3 trained assistants. This measure yielded 100 percent returns rate. Data obtained were subjected to statistical analysis using Population t-test analysis for the single mean. Summaries of results are presented in tables.

Results

Hypothesis one

Quality assurance in the maintenance of infrastructure in Colleges of Education is not significantly low. The variable in this hypothesis is a quality assurance in the maintenance of infrastructure. Population t-test of single mean statistical analysis is used to analyse the data obtained.

Table 1: Summary of population t-test statistical analysis of quality assurance in the maintenance of infrastructure in Colleges of Education in Akwa Ibom and CRS

(N= 90)						
S/N	Variables	\bar{X}	μ	SD	t.cal	
1	Maintenance of infrastructure	19.23	15.00	5.03	3.75*	
P<.05 df=89; critical t-value=1.987						

From the result presented on table one above, it could be discerned that, with 90 respondents (Heads and Deans of schools), the sample mean was found to be 19.23 with a reference mean (population means) of 15.00 and a corresponding standard deviation of 5.03. The t-calculated value is 3.75 which is greater than the critical t-value of 1.987 at .05 level of significance and 89 degrees of freedom. Therefore, the null hypothesis is rejected. This implies that quality assurance in the maintenance of infrastructure in colleges of education in AKS and CRS is significantly low as shown in table 1.

Hypothesis Two

Quality assurance in adherence to students' admission policy in Colleges of Education is not significantly low. The variable in this hypothesis is a quality assurance in adherence to students' admission. Population t-test of single mean statistical analysis is used to analyse the data obtained.

Table 2: Summary of Population t-test statistical analysis of quality assurance in adherence to students' admission policy in Colleges of Education

(N=90)					
S/N	Variables	\bar{X}	μ	SD	t.cal
1.	Student admission policy	18.05	15.00	4.28	3.17*

*P<.05 df= 89; critical t-value=1.987

The result in table 2 above showed that with 90 respondents (Heads and Deans of schools) the sample mean found to be 18.05 with a reference mean of 15.00 and a corresponding standard deviation of 4.28. The t-calculated value is 3.17 which is greater than the critical t-value of 1.987 at .05 level of significance and 89 degrees of freedom. Therefore, the null hypothesis is rejected. This implies that quality assurance in adherence to students' admission policy in Colleges of education in AKS and CRS is significantly low.

Hypothesis three

Quality assurance in the supervision of instruction in colleges of education is not significantly low. The variable in this hypothesis is a quality assurance in the supervision of instruction. Population t-test of single mean statistical analysis is used to analyse the data obtained.

Table 3: Summary of population t-test statistical analysis of quality assurance in the supervision of instruction in Colleges of education in AKS and CRS

(N=90)					
S/N	Variables	\bar{X}	μ	SD	t-cal
1	Supervision of instruction	13.06	15.00	4.81	1.62

P>.05 df= 89; critical t-value=1.987

It is clearly seen from Table 3 above that with 90 respondents (Heads and Deans of Schools) the sample mean was found to be 13.06 with a reference mean (population mean) of 15.00 and a corresponding standard deviation of 4.81. The calculated t-value of 1.62 was found to be less than the critical t-value of 1.987. Therefore, the null hypothesis which states that quality assurance in the supervision of instruction in Colleges of Education is not significantly low is accepted. This implies that quality assurance in the supervision of instruction in colleges of education in AKS and CRS is significantly high.

Discussion of findings

The result of the findings as shown in table 1 is an indication that quality assurance in the maintenance of infrastructure in colleges of education is significantly low. Thus, the null hypothesis is rejected. This finding is not surprising because colleges of education in Akwa Ibom and the Cross River States are overwhelmed with dilapidated buildings that derail students' learning. Good facilities are an important requirement for students learning because it makes the environment to be conducive and stable for teaching and learning. However, where ventilations are not conducive as observed during the course of this study, it negatively affected learning as well as the wellbeing of both students and lecturers. This may be as a result of government inability to appropriately maintain infrastructural facilities in most colleges of education. Inadequate provision and maintenance of amenities are as a result of insufficient funding. The present study is in agreement with Akinola (2007) who found out that, the failure of the government to properly tackle the problem of infrastructure, particularly in

colleges has led to the poor academic performance of the student in colleges. This result could be an explanation of why most school management authorities find themselves unable to stem the tide of producing poor quality graduates that cannot withstand the taste of time and compete effectively in the labour market.

The present study is also in consonance with the study of Glickman, Gordon, and Ross-Gordon (2001) who found out that inadequate funding, lack of building and provision of recreational facilities are the greatest need in the colleges of education. Maintenance of infrastructure is a complex task that is even more difficult with taking decisions to prioritize aspects to be maintained. Several factors that account for the deplorable conditions of infrastructure in colleges of education in Nigeria include inadequate government intervention, no sense of ownership by stakeholders, inadequate funding, and vandalism. Furthermore, lack of maintenance, neglect, deferred maintenance, and overcrowding were also identified. A multi-stakeholder framework for the proper maintenance of colleges of education infrastructure is proposed to eradicate existing poor conditions.

Similarly, Edwards (2002) found out that, students in excellent building conditions performed well than students in fair and poor building conditions supported this finding. It, therefore, follows that quality infrastructure engenders conducive learning environment which relates positively to students' academic performance in colleges of education.

The result of the findings in table 2 revealed that quality assurance in students' admission policy in Colleges of Education in AKS and CRS is significantly low, which suggests that quality assurance policy was not followed in admitting students. This leads to lowering of academic standard. By not adhering to quality assurance in students' admission, colleges of education end up admitting unqualified students who turn out to be a liability to them. As a result, academically sound candidates were not able to gain admission while some academically weak candidates were offered admission even when they were not qualified. At this juncture, educational quality was negatively affected.

The study is in agreement with the findings of Asuru (2002) who came out with the finding that, candidates who were not qualified for admission but were admitted due to some factors were beneficiaries of examination malpractice. This is expected because where students find it difficult to cope with the rigours of academic programme, they are likely to resort to disingenuous ways of passing their examinations, of which examination malpractice is chief. In tandem with this finding, Ugwunga in Onyishi, (2007) frowned at the non-adherence to admission policy in colleges of education, whereby the allocation of not less than sixty (60%) in sciences was ignored in preference to admitting students who lack basic and requisite qualification. This was contrary to policy stipulation. Under this condition, colleges of education have proved incapable of meeting the expectation of producing high-level teaching manpower for the primary and secondary school systems. Similarly, Mohammed and Iyela in Israel and Israel (2014) attributed the low standard in education to students who did not meet the admission requirements but were admitted into the college.

The findings of the study in table 3 showed that supervision of instruction in Cross River and Akwa Ibom is significantly high, suggesting that it is satisfactory and meeting the expected standard. This finding has reinforced the age-long belief that the success or failure of any college educational enterprise depends among other factors upon the supervision of such enterprise be it a school or an organization. Thus the success of any school achieving its goal and objectives depends on the professional responsibilities and leadership role of the supervisor. The finding is in consonance with that of Anuna, (2004) who in a study found supervision of instruction to be essential tool or instrument needed to enhance quality control and maintenance of standards in the secondary education system throughout Nigeria. Similarly, Eya and Leonard's (2012) study outcome with college students in Zaria that effective supervision help teachers to improve on their instructional competencies laid credence to this finding. It, therefore, follows that where the quality of instructional supervision is high, there is the tendency that teachers will be on top of their trade, followed with high academic standard and achievement.

In line with this finding, Obilade (2001) opined that instructional supervision is a helping relationship whereby the supervisor guides and assists the teachers to meet the set targets. Through this, teachers can be able to record

a high level of performance with the attendant result of guiding students to achieve similar results in their academic endeavours.

Conclusion

Based on the findings, it was concluded that quality assurance practices such as maintenance of infrastructure and students' admission policy are poorly adhered to and practiced while supervision of instruction records outstanding success. Thus colleges of education in Akwa Ibom and the Cross River States achieved tremendous results in one aspect of quality assurance practice, while in others, they recorded dismal failure, showing that they not all round good in adhering to quality assurance practices.

Recommendations

Based on the findings of the study, the following recommendations were drawn.

1. The government should establish a sound supervisory and maintenance agencies that will be solely responsible for maintenance of infrastructure in Colleges of Education.
2. There should be strict adherence to students' admission policy in Colleges of Education. The quota system, favoritism, and nepotism should not be allowed in admission into tertiary institutions of learning.
3. Quality assurance in the supervision of instruction in Colleges of Education should be strengthened to achieve higher results. This will help to promote standards in the educational system.

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The Academic Experience of 1st Year International Students at Northeast Normal University: A Case Study of Northeast Normal University, Changchun, China

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Abstract

The present study explored the Academic Experiences of 1st year International Students in Northeast Normal University, Changchun, China. The trend of globalized education attracting thousands of international students towards China every year for their Higher Education & its flow is increasing so far. Hosting universities are trying to provide them with all the required facilities in order to achieve maximum academic performance and high satisfaction by the international students. That's why this study aimed to investigate the academic experiences of international students and what do they perceive. The current study involved 80 1st international students from various countries who were enrolled in Bachelor, Master, and Ph.D. programs in NENU, Changchun, China. The study employed the quantitative method which is followed by the adapted questionnaire, at 5-point likert scale developed by Almeida at el in 1999, namely Academic Experience namely QVA-r. It is comprised of five dimensions, i.e. Personal, Interpersonal, career study and institutional. As per statistical findings among all dimensions career and institutional dimension shown best adaptation rate among 1st-year international students in NENU. Male participants were determined with better adaptation in contrast with female students. QVA-r has shown as a good tool to evaluate international students' academic experiences of higher studies.

Keywords: Academic Experiences, International Students

Introduction

Education is the process of gaining knowledge which plays an important role in forming the human society. Thus The aim of education, according to Whitehead (1932), is the production of active wisdom (as cited in Elliot, 1996); hence, involving in research makes one an individual in the formation of knowledge. In the present age, higher education plays a key role in the development and advancement of a nation by nurturing novelty and escalating higher professional skills. As per UNESCO, the higher education takes part in the association of cognitive and academic domains as well as in the growth of society. It reveals revolutionary perspectives and opportunities of rationality by means of creative and inventory skills. Higher education is increasing in a speedy pace at global level as well, In line with OECD, the number of higher studies students in foreign countries was remarkably increased between 1985 and 2008, and this vogue is supposed to be carried on. Globalization of

education is reflected as the major foundation of novelty, directed to collaboration by dealing with multi-cultures.

Higher studies institutions facilitate scholars in supplying supportive ground in order to alter the conceptions into creativity. With respect to innovation, the United States of America is considered as the most benefit taker by higher globalizing of education through combating international students at a high level in contrast with other countries of the world, that are also assisting international students (Gang, Wei, and Jing-Lin, 2009).

The numbers of factors are responsible for attracting students for higher studies towards foreign countries, such as economic support, availability of the latest equipment in laboratories, well-furnished libraries. The British and Australian universities made an association with the British Council and Individual Development Plan, respectively in order to accelerate studies for international students up to 5.8 million by the year 2020 (Asteris, 2006). Several Chinese universities are also hosting international students independently and with the cohesion of Government council, i.e. China Scholarship Council (CSC) or independently by granting different kinds of scholarships, funds, or self-financed, in order to provide a platform for international students to take part in the input of globalized education.

According to the report of China's Ministry of Education 2017, the enrollment rate of foreign students is increased up to 10.5%, i.e. about 489,200, in comparison with 2016. It is further aimed by the Government to increase the number of foreign students about 500, 00 till 2020. Moreover, it is also noticed via statistics information that interest towards higher academic studies is remarkably increased in China. About half of the total international students, i.e. nearly 241,500 (49.38%) are registered in certain series of academic degrees in a broad series of disciplines. This shows about 15% growth occurred in contrast with 2016's academic enrollments. Focusing only at Masters and doctoral enrollments, it is noticed that about 19% increase in strength of foreign students occurred each year, and reached to 75,800 students in 2017.

Year	Number of international students in China
2011	291,880
2012	327,659
2013	355,629
2014	377,054
2015	397,635
2016	442,773
2017	489,200

Source: Ministry of Education / Center for Strategic and International Studies

According to figures the strength of international students in China has been doubled in the last decade. At the end of 2017 China is considered the most famous place for students across the countries of Asia.

Moreover, the background of foreign students is belonged from diverse cultures and countries, because of this they are different from their host countries in many ways, e.g. local language is entirely dissimilar from the native language of their sponsored countries, as a result of which they have to struggle hard to adjust to the new country in terms of social adjustment, academic facilities, physical needs international students office activities. (Talebloo&Baki, 2013).

In order to provide all requirements to the foreign students, Sponsoring universities of China is facilitating foreign students in a holistic manner, e.g. well-furnished laboratories, comprehensive database libraries, comfortable living facilities, appropriate funds, and highly qualified professors. Whereas international students are required to work hard to meet the academic standards, in order to complete respected program so they may get certificated. Therefore accomplishment of the academic program is based on the experiences they endure, and in that regard, universities should consider all the needs & requirements of international students in order to

attain good academic performance. Several factors are involved in the attainment of academic performance. According to one survey, international students reported that they require a wide range of academic assistance facilities, like a comprehensive database and skills to use libraries (Hughes, 2010, Catherine Ferguson, 2011). These academic facilities can be covered by providing adequate guidance in language and academic learning expertise, mentoring help along with foreign student consultants, approachability toward all academic reserves, and student unions (Wang, Sing, Bird, & Ives, 2008). Moreover, it is also reported that, the introductory lessons or programs by university are presented in the very beginning of the academic session (Hughes, 2010) while several students may not be able to come university on time, some seem busy in the adjustment and arrangement of requirements related to accommodation due to which they can't concentrate properly in academics.

The above pointed out challenges may influence the academic performance of international students, and can slow down their progress, in such manner hosting universities should tackle these problems and supply enough assistance in order to adjust in a new setting. This study is designed to investigate the academic experiences of first-year international students at Northeast Normal University (NENU).

Context of the Study

The present study is executed at one of the sixth national normal universities in the People's Republic of China, namely Northeast Normal University, located in the Northeast of China, the capital of Jilin province. It was first named as Northeastern University founded by Communist party in Benxi, Liaoning province, in 1946. It was moved to Changchun and renamed as Northeast Normal University in 1950(n.d.nenu.edu.cn).

NENU covers an area of about 1.67 million square meters comprised of 23 schools, providing different majors, offering 145 Masters and 77 Doctoral degree programs. The total number of students in NENU is 25218 including 10,945 Doctor & master's program students, among them 635 are international students (n.d.nenu.edu.cn). NENU has also made international exchange program relations with more than 200 foreign universities of over 40 countries. From 1950, NENU has successfully hosted about 10,000 international students from more than 90 countries (<http://www.csc.edu.cn/studyinchina/universitydetailen.aspx?collegeId=12>).

Theoretical framework

Almeida's concept of academic experiences supports my study. In 1999 Almeida explained these experiences as students' views and thoughts in terms of daily basis occurrences during the life of the university. The theory is incorporated into the following five aspects.

Individual aspect:

It involves the physical and emotional state of health of a student like control over emotions, sentimental strength, positivity, self-confidence and power in taking decisions. The weakness of these features may lead to anxiety, confusion, isolation, physical weakness, negativity, and imbalance emotional state along with sorrow, feeling of complex and low confidence. (Gu, Schweisfurth, & Day,2010) reported three major obstacles for newly arrived international students in the United Kingdom, i.e. the feeling of loneliness, economic issues, and homesickness which affect their academic progress. As per findings of Popadiuk (2008), female international students were reported with greater psychological suffering as compared to males, which influenced them in adapting to the new environment.

Interpersonal aspect:

It is related to interaction and relationships with other people of university, i.e. classmates, teachers, that leads to intense attachment. It is revealed by some studies that some factors cause difficulties for international students to adjust in the new environment, which includes unfamiliarity with the language of the host country, cultural dissimilarities, economic problems, hectic schedule that creates difficulty in maintaining relationships with

native ones (Andrade, 2007; Malau-Aduli, 2011). International students also been reported with the unsatisfied relationships with their teachers, leads to weaker understanding (Gu, Schweisfurth, & Day, 2010)

Career Aspect:

It is referred to thoughts in terms of the selected program of studies and career identification, which involves gratification and motivation towards expertise of that program that leads to professional development. The motivating factor of conducting higher studies in abroad for students is to gain proficiency in foreign language and brighten their career opportunities (Domville-Roach, 2007).

Study Aspect:

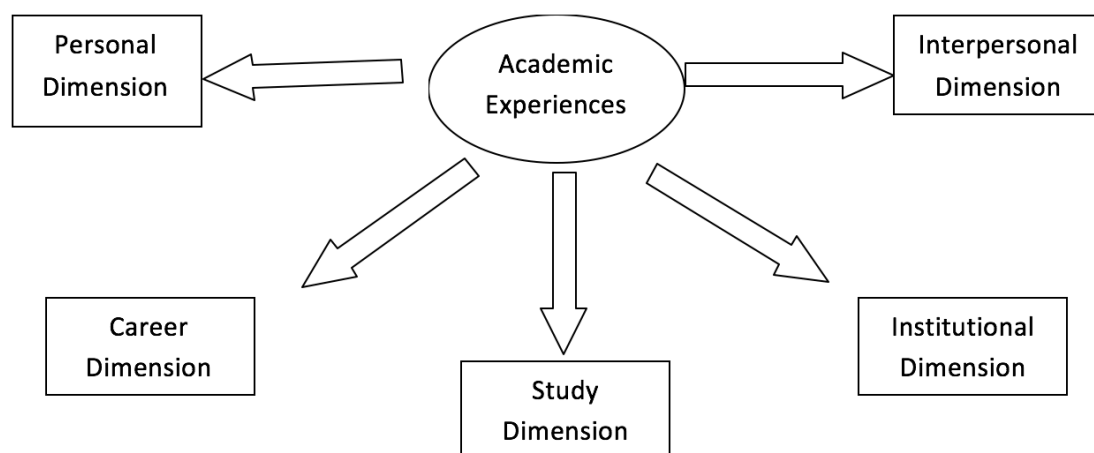
This dimension is related to student's routine and habits of study along with managing time. It describes the use of academic resources and library in order to improve learning and to achieve good academic performance. Sufficient supply of academic learning resources, i.e. library, well-equipped laboratories, reading rooms, and other services are necessary for acquiring good performance of students. Karemera et al. (2003) analyzed that satisfaction of student is positively linked with their results. Significant performance of students is the outcome of effective use of existing learning resources (Norhidayah Ali et al., 2009).

Institutional Aspect:

It refers to perceptions of students regarding the importance of institution, affection towards institution along with an estimation of facilities and services provided by the institution.

Conceptual Framework:

Based on Almeida's concept of academic experiences the conceptual framework is presented as below:



By examining the information regarding students' individual characteristics as the dimensions of academic experiences, it is beneficial in attaining a better understanding of the implementation of the personal, academic course and useful for institutional proceedings in advancing the international students' facilities, the stability of their studies and their academic performance.

Literature Review:

Over the past few years, higher education has endured considerable changes in order to fulfill the requirements and aligned with society. By facing these changes, universities have started to look for the new institution, as

society creates and pass its values, in order to upgrade human standing in terms of various aspects, (Cunha; Carrillo, 2005).

The transition from high school towards higher studies seems an interesting progression for most of the students, and they feel very excited as they can be facilitated in terms of career, professional and individual development. This stage gives more freedom and allows them to make new bonds and relationships by interacting with people within academic or beyond academic settings that result into the advancement of individuality and self-determination, (Almeida, 2007; Almeida, Cruz, 2010).

Shifting towards university plays a distinctive role in a student's life, as it provides opportunities for the development of various aspects by experiencing new academic, psychological and social experiences. At the same time, this transition may also cause anxiety and nervousness among students who are trying to adjust in the new academic environment, (Friedlander et al. 2007; Maze, Verliac, 2013).

However, as per previous studies, the evolutionary shifting towards higher education may be easier for some students and difficult for others. But to achieve academic goals, it is imperative to observe other contributing factors, such as intellectual skills, social adaptations, personality traits, and optimism. (Feldt, 2011).

According to few studies, students in the 1st year need to get particular attention after their arrival at the university, so that they may get easier adaptation. The attention should be increased for those students who are less capable of this transition or weaker in terms of the psychological state. (Soares, Poubel and Mello, 2009).

Previous studies have shown that about half of the university students have to face a different kind of difficulties in that academic phase. This may lead to poor performance of the student and drop out, particularly in their first year of study. (Almeida; Soares; Ferreira, 2002).

A number of studies have been done on perceptions and experiences of international students towards the learning of Chinese culture as shown from previous research, e.g. Akinkugbe (2013) studied the impacts of international students' on cultural background in the Bowling Green State University, the findings showed that students perceived that to learn the host culture and environment was somewhat different from their own perceptions.

However, Erkan&Walker (2016) conducted their study on the perceptions and experiences of Muslims International students with a sample of 189 in Canada. The findings showed that Muslim students were identified as fair with culture in Canada. The majority of Muslim students perceived that they had experienced unfairness only once during the previous academic year in university while Newsome and Cooper (2015) conducted a study on international students' cultural experiences with a sample of 18 in the UK. The findings showed that participants faced hurdles in satisfying their human needs. They often suffered racial discrimination, racism, and aggression. Similarly, Yuan (2011) studied the cultural experiences of Chinese students with a sample of 10 in the United States. The results indicated that most Chinese students often had more concerns about their insufficient language and cultural differences, which consequently increases their uncertainty when interacting with the host culture. In another study, Sulkowski and Deakin (2010) examined the culture learning experiences of international students in the UK. Their findings showed that there is evidence of a positive correlation between culture and learning styles of students. Similarly, Sliwa and Grandy (2006) investigated the cultural experiences of overseas students with a sample of 14 students and staff at University of UK. All participants' perceptions of learning culture were positive. In one study Ding (2016) explored the experiences of international students with a sample of 40 in China. The study found that international students perceived the low level of satisfaction with food, living and language barriers. Similarly, Brauss, Lin, and Baker (2015) studied on the social experiences of international students with a sample of 1,427 at Auburn University USA. Concerning gender, female international students perceived language barriers, lack of communication, cultural differences, than their male counterparts. In another study, Sumra (2012) explored the problems of international students in the People's Republic of China with a sample of 420. The findings proved that social

and cultural problems among both male and female students were food, living, activities, health, language, and culture.

Similarly, Orth (2015) examined perceptions and experiences of international students with a sample of 14 regarding gender in Australia. The study found that international students had a variety of experiences such as eat new foods, old traditional methods, and culture and language barriers. The male students had communication problems and had a negative impact on host culture. In another study, Sultana and Smith (2011) studied perceptions of international students regarding social and cultural experiences with a sample of 36 concerned genders in the US. The findings showed that the perceptions of both male and female participants were positive towards the culture learning and experiences were comparatively better than the students' of home universities. Experiences of female students were more Significant towards the host culture than their male students were.

Research Objectives of the study

- To understand the students' academic needs.
- To know the perception of international students regarding academic experiences at NENU.
- To explore the challenges encountered by international students academically.
- To examine the rate of adaptation of international students with respect to gender at NENU.

Research Questions of the study

- What are the learning experiences of International students at Northeast Normal University?
- What are academic facilities being provided to international students at NENU?
- What is the adaptation rate of international students with respect to gender?

Significance of the Study

I have chosen this study because China has got a significant ratio of worlds international students. The outcomes of students not only linked with the University but also highlight the name of China. With the help of my study students, progress can be improved. This study will elaborate not only academic experiences of international students but also explains their academic status at NENU, by examining their adaptation rate in University. By the help of this study, it will be easy to understand the challenges faced by international students so that they may be resolved. My study will be beneficial for teachers to understand the problems and academic status of their students. Furthermore, my study will be stepping stones for those who are interested in doing further study in the future.

Research Methodology

Design of the study

The design of the study was a quantitative survey which was sought through the questionnaire.

Participants

The participants of the study were selected randomly by means of simple random sampling. All the participants were 1st year of under and postgraduate students of NENU, i.e. Bachelors, Masters, and Doctoral. 120 questionnaires were distributed among all 1st-year international students, 80 questionnaires were considered for analysis, while others were excluded due to incomplete information. The ages of participants ranges from 22 to 33 years (mean = 25.43 years), being 41% (n=33) were females and 58% (n= 47) were male students. As all international students belong from different countries, therefore they are grouped on the basis of their continents, a majority of the participants belongs to two main continents, i.e. 20 from Africa, 56 from Asia and rest of them placed in others. Educational level of the participants range from Bachelor to doctoral level, i.e. 3 from BS, 53 from MS and 24 were Ph.D. students.

Table 1- The demographic information of the sampled students

Variables	Category	N	%
Gender	Male	47	58
	Female	33	41
Age Group	Up to 20 years old	2	2
	From 21 to 25	42	84
	Greater than 25 years	36	45
Nationality	Asian	56	70
	African	20	25
	Others	4	5
Educational Level	Bachelor	3	4
	Master	53	66
	PhD	24	30
School	Chinese Language	7	9
	Education	18	22
	Economics	10	12
	Chemistry	10	12
	Geography	2	2
	Life sciences	15	19
	Environmental sciences	16	19
	Foreign languages	2	2

Instrument

For data collection, researcher used Questionnaire of Academic Experience namely QVA-r, developed by Almeida et al. in 1999, It is composed of five points likert scale comprising 60 items in order to explore academic experiences, divided in to five dimensions, i.e. 1) Personal skills (13 items) 2) Interpersonal skills (13 items) 3) Career aspect (13 items) 4) Study approaches (13 items) 5) Institutional consideration (8 items) (Almeida et al., 1999). The validity of the questionnaire was evaluated through the Chilean population and found internal stability ranges between 0.89 and 0.72 (Abello et al., 2012).

Table 2- Values of reliability for the dimensions of academic experiences

Dimensions	Alpha
1- Personal skills	.89
2- Interpersonal skills	.86
3- Career aspect	.80
4- Study approaches	.83
5- Institutional consideration	.72

Data Analysis:

Dispersion of questionnaires was taken place randomly in all the schools of the university by the researcher. Received data was analyzed by means of different statistical tests, i.e. Mean, Median, Standard Deviation and Spearman correlation analysis. All the results are figured out below.

Table 3- Demonstrate the results of five dimensions of academic experiences by Mean, Median, and standard deviation

Dimension	Mean	Median	Standard Deviation
Personal	3.31	3	.25
Interpersonal	3.39	3	.28

Career	3.6	3	.21
Study	3.5	3	.22
Institutional	3.7	3	.24

By calculating the mean, median and standard Deviation of all five dimensions of academic experiences, it is disclosed that all mean scores value is greater than 3. The highest mean value among all dimensions is obtained by institutional dimension, i.e. 3.7, which shows the best adjustment indicator, followed by the career dimension, i.e. M=3.6, identifying that both dimensions are present appropriately in the academic experiences of the first year of international students of NENU.

On the other side, the personal dimension is shown by the lowest adaptation rate (M=3.31), verifying that international students need to show a better tendency to become accustomed in the university.

Table 4- Assessment of dimensions with respect to gender

Gender	Dimensions					Total QVA-r
	Personal	Interpersonal	Career	Study	Institutional	
Female	3.3	3.8	4.3	3.8	3.4	3.72
Male	3.6	4.2	4.3	3.5	3.6	3.84

Table# 4 represents the mean scores of all dimensions with respect to the gender of participants. It is revealed through results that male participants appeared to show a better adjustment rate as compared to female students. This finding is in line with Diego Roberto Lima dos Anjos, 2017, which shows a significant difference between male and females' academic adjustment among medical students, and males showed comparatively higher adaptation rate in all dimensions than female participants.

Spearman correlation analysis between the 5 dimensions

In order to investigate correlation among all 5 dimensions, Spearman correlation was used statistically. The results revealed the only positive correlations were considered of moderate magnitude between personal and study dimensions (p -value < 0.0001 or $r = 0.183$). Hence it can be formulated that feelings and desire for the study are associated with the psychological state of the students.

Conclusions

Regarding objectives of this study the academic experiences of first-year international students of NENU were overall found satisfactory with a good rate of adaptation, however, adaptation rate was found higher in male students with Mean 3.8, in contrast with female students, as they acquired total QVA-r 3.7. However, some studies identified that male students appear better in career and personal aspects as compared to female students, Schlich's, 2006. While as per our findings, it is identified that male and female students appeared the same only in the career dimension and found no difference with Mean value, i.e. 4.3.

Moreover, female participants performed better in study dimension with Mean 3.8, as compared to male participants with Mean 3.5. Thus it can be inferred that in female students adaptation rate in terms of study dimension is greater than male students. It is also proved statistically by past studies that female students have shown higher performance by achieving higher averages in the study dimension, Wilson et al., 1996.

Some studies also reported that female students show better performance in studies through systematic planning of their tasks, and found more responsible as they show more attendance in the classroom as compare to male students, Cunha, 2004.

Cunha in 2005 further concluded in his study that, females experience more anxiety and depression as compared to male students and possess a high level of psychological and adaptation rate as compared to males.

Spearman correlation revealed the positive relation between personal and study dimensions, which determines that interest and concentration towards study depend upon the psychological state of students.

This finding is in line with (Khramtsova, Sarnio, Gordeeva, & Williams, 2007, Salami 2010, Tamara Turashvili, 2012), which identified a psychological state of students is interlinked with students' attitudes and academic performance in higher educational institutions. The intention behind several studies was to investigate the impact of psychological state, emotional intelligence and self-efficacy on students' behaviors and attitudes. Therefore optimistic emotions influence students' behaviors and attitudes that result into adaptation and success (Salami, 2010, Tamara Turashvili, 2012)

Suggestions:

This study focused on academic experiences of international students, and Future studies should be conducted on other experiences, experienced by international students, such as cultural, social and physical experiences, in order to investigate their adaptation rate and thus be helpful in enhancing their adjustment in Chinese higher institutions.

This study reveals comparatively low adaptation rate in female students in contrast with males, so in order to investigate its reasons, another study must be conducted for deep understanding.

University authorities should take actions to improve the adjustment rate of new international students so that they may grow in their personal skills.

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A Study on Students' Motivation to Learn Chinese Culture Course: The Case of 2018 Northeast Normal University International Students

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Abstract

This study explored international students' motivation toward learning the Chinese culture course. Specifically, the study focused on investigating what interest the students towards the Chinese culture course. The study also looked into the challenges of international students faced while studying the Chinese culture course. To meet these objectives, the study used a descriptive survey design with a mixed method. Questionnaire and interviews were used to collect data from a sample of 38 international students from 7 colleges in Northeast Normal University (NENU). Finally, the finding indicated that international students at NENU are curious to learn the Chinese culture course. The respondents are keen to learn the culture they live in during their study period. Therefore, the study concluded that international students are studying the Chinese culture course not only because the course is compulsory, but also they are also keen to learn the Chinese culture course.

Keywords: Culture, International Students, Motivation

I. Introduction

Motivation is the energy that drives human beings toward achieving a goal. In the same vein, students' motivation is very important for the successful delivery of the course because motivation is the energy that directs all of us toward achieving a certain goal (Broussard & Garrison, 2004). And, the prime source of motivation is inherent in all of us. Educational psychologists have long documented the importance of motivation for supporting students learning regardless of what they are learning. That means if one is motivated towards what he/she is studying, it is likely that one will be successful. In line with this point, Broussard and Garrison (2004) stated that motivation is the characteristic that drives us to do or not to do something we are engaged in. It is also good to underline that our perception is the source of our motivation. Freud, who is known as a father of the school of psychology, wrote that humans are motivated to act as a result of perceived internal imbalances in the body (Weiner, 1980). It means motivation is directly linked to individual performance and is used as a catalyzer for every individual learner to complete a study and task in a much better way than they usually do. Similarly, some people have a very strong internal interest in other cultures, in discovering things that are different, in learning about other perspectives. That can be called an intrinsic interest, and therefore an internal motivation to learn about something new including culture. The other thing one can be motivated by is the need to develop confidence in multicultural situations. So one might already instinctively feel positive about interacting with people from other cultures and the more positive situations you associate with such interactions, the more you want to experience them.

With these facts in mind, there is a tradition of teaching Chinese culture course in Chinese Universities for international students coming to China. The course is mainly about Chinese culture, history, and geography. As one of the Universities run by Chinese Ministry of Education, Northeast Normal University also gives the Chinese culture course to its international students coming from over 100 hundred different countries under the CSC and MOFCOM scholarship schemes. The course is not directly related to the majors of students, yet it is a compulsory requirement to get one's diploma at the end of the study period. The course is designed principally to introduce international students with Chinese culture and history. However, for the effective delivery of this course, understanding the students' motivation towards learning the course is helpful. Thus this study was undertaken with the intention to explore the motivation of the students towards learning the Chinese culture course and to see if there are factors that deter the students learning.

Statement of the Problem

Chinese culture course is one of the courses given to all international students in the fall semester every year at Northeast Normal University. However, as one of the students taking the course, the researcher noticed some students who are missing classes and some students who usually come very late to class. In addition to this, since the course delivery is one way it is very difficult to notice the motivation of learners. This made the researcher wonder about the motivation of the students towards learning the Chinese culture course. Because, it is imperative to question the motivation of the learners towards learning a course, for it is a very important concept that explains why people think, behaves and does as they do as stated in (Weiner, 1992). Motivation is also a notable factor in our success and failure. Thus, this study explored international students' motivation toward learning the Chinese culture course.

Research Questions

The study was led by the following guiding research questions

1. How do international students perceive learning the Chinese culture course?
2. What interest international students towards learning Chinese culture course?
3. What challenges do students face when learning Chinese culture?

Objectives of the Study

The main objective of this study is to examine the international students' motivation towards learning the Chinese culture course at Northeast Normal University.

The Specific objectives of the study include:

1. to examine the perception of international students towards learning Chinese culture course
2. to identify what interest the international students to study the Chinese culture course.
3. to identify the challenges the students face when learning the Chinese culture course.

II. Background of the Study

Culture is an extremely hard term to explain. Much of the difficulties stem from the different usages of the term as it was increasingly employed throughout time in history (Spencer-Oatey, 2012). As a result, different philosophers have defined culture differently. For example, Tyler (1870) cited by Averuch (1998) defined culture as "complex whole which includes knowledge, belief, art, morals, law, custom, and any other capabilities and habits acquired by man as a member of society." For Furstenberg (2010), "culture is a highly complex, elusive, multilayered notion that encompasses many different and overlapping areas and that inherently defies easy categorization and classification." Another philosopher called Hofstede (1994) cited in Spencer-Oatey (2012) explained that culture is the collective programming of the mind which differentiates the members of one group or category of people from another. Culture in this sense is a system of collectively held values. It is learned patterns of behavior. Individuals are not born with any kinds of cultural values or thinking. Individuals

are born into a culture, and they subsequently learn how to behave within their society. Individuals can also learn the culture of a foreign society in cases when they get opportunities to live out of their society. In this case, learning the culture of a society, one lives in is believed to help one by making one's stay smooth and simple. This is because culture simply is not simply a body of knowledge but rather a framework in which people live their lives and communicate shared meanings with each other.

Motivation, on the other hand, is basically a concept concerned with the strength and direction of behavior and the factors that influence people to behave in certain ways. It plays a central role in learners' achievement. It is the inner state or force that drives, directs and endures behavior towards achieving a certain goal. However, it is usually difficult to define what motivation is all about exactly. Measuring motivation in education is also a challenging practice. This challenge is partly because of the complexity to operationally define motivation (Mubeen and Reid, 2014). The key to measuring motivation must be to look for behaviors indicating high motivation and low motivation. However, most approaches have relied on self-report and this can only measure what respondents think about themselves and may or may not reflect reality (Danili and Reid, 2004).

The topic of teaching and learning culture has attracted the attention of lots of researchers and much has been written about the role of culture in foreign language instruction over the past few decades. Yet the emphasis is always on language teaching and learning than teaching culture. In reality; however, the language of a society cannot be separated from the culture of the society because culture comprises the "patterns of human behavior that includes thoughts, communications, languages, practices, beliefs, values, customs, courtesies, rituals, manners of interacting and roles, relationships and expected behaviors of a racial, ethnic, religious or social group; and the ability to transmit the above to succeeding generations" (Goode et al., 2000). Strengthening international students' cultural awareness is pivotal for their language learning. It can also help them to familiarize them themselves very easily to the society they live in. To this end, the practice of conducting an independent culture course in China and specifically in Northeast Normal University is of paramount advantage for international students. Teaching culture raises an understanding of and reduces prejudice towards other cultures and peoples. By emphasizing the cultural content teachers can help students to accept the legitimacy of cultural differences among peoples. Thus, Byram (1991) concluded that "cultural knowledge or information should have a beneficial effect on attitudes and understanding in the longer term and, in the short term, also helps to make lessons more attractive and interesting." Integration of the study of language with the study of culture serves the purpose in foreign language learning of developing communicative competence, cultural awareness, and reinforcing tolerance, a deeper understanding of and appreciation for the richness of diverse cultures. However, culture teaching cannot be regarded as teachers do in grammar teaching. Cultural teaching needs to focus on exploration and description as opposed to teaching grammar because the rules of creating meanings are dynamic (Tanriverdi, 2008). That is cultural understanding constructive learning. Robinson (1985), Adamowski (1990) and Tseng (2002) supported the constructive view of culture learning. They view cultural understanding as a shared process in which every individual constructs his/her own meaning with his/her internal cognitive map.

III. Methods

This study used a descriptive survey design with a mixed method. The use of both qualitative and quantitative approaches at a time, as pointed out by Niglas (2004), for the same phenomena helps to come up with a more reliable finding. The population of the study is the international students taking the Chinese culture course at Northeast Normal University in the fall semester of the year 2018. The study used 38 students drawn by simple random sampling technique. This study used a questionnaire and interview as a tool for data collection. The Statistical Package for Social Sciences (SPSS) was employed to analyze quantitative data from the questionnaires, and the qualitative data obtained from the interviews were analyzed thematically.

IV. Findings and Discussion

Research Question-1: How do international students perceive learning about the Chinese culture course?

The study examined the students' curiosity to learn the Chinese culture. When responding to questions about their curiosity for learning Chinese culture, 86.84% respondent indicated that they are very much curious to learn about the Chinese culture course. 7.9% of respondents didn't decide on this issue whereas the remaining 5.26% were found as not interested in the course. On the other hand 76.4 % of the respondents like the content of the Chinese culture course material. And many of the participants in this study never feel embarrassed to participate in the Chinese culture course class. They enjoy it as implied by 81.6% of the participants. (See the table given below for the detail).

No	Statement	No. Resp.	Responses in Frequency and Percentage									
			SDA		Disagree		Undecided		Agree		SA	
			F	%	F	%	F	%	F	%	F	%
1	Content of course book is interesting	38	1	2.6			8	21.1	21	55.3	8	21.1
2	I am curious to learn the Chinese culture course	38	1	2.1	1	2.1	3	7.9	14	36.8	19	50
3	It embarrasses me to volunteer participation in Chinese culture class	38	11	28.9	10	26.3	10	26.3	4	10.5	3	7.9
4	Studying Chinese culture makes my stay in China simple and smooth	38	1	2.6	1	2.6	6	15.8	24	63.2	6	15.6
5	I am studying the Chinese culture course seriously like the other courses	38	3	7.9	-	-	9	23.7	20	52.6	6	15.8
6	I am studying Chinese culture course only because it is a compulsory course	38	8	21.1	18	47.4	5	13.2	4	10.5	3	7.9
7	I am interested in the Chinese culture course because it is informative	38	-	-	4	10.5	6	15.8	15	39.5	13	34.2
8	Studying the Chinese culture course is a burden for me	38	21	55.3	15	39.5	2	5.3	-	-	-	-
9	I enjoy going to the Chinese culture course	38	2	5.3	-	-	5	13.2	18	47.4	13	34.2
10	I have never missed the Chinese culture course class since I started it	38	3	7.9	8	21.1	4	10.5	8	21.1	15	39.5
11	I usually look for new cultural elements from my Chinese culture class	38	-	-	-	-	3	7.9	24	63.2	11	28.9
12	Studying the Chinese culture course is helpful to study the Chinese language easily	38	2	5.3	3	7.9	13	34.2	10	26.3	10	26.3
13	I would enjoy my study if there were no Chinese culture course	38	16	42.1	16	42.1	6	15.8	-	-	-	-
14	I am studying a Chinese culture course just for a pass status	38	20	52.6	13	34.2	4	10.5	1	2.6	-	-
15	The teacher's way of teaching interests me	38	-	-	-	-	4	10.5	18	47.4	16	42.1
16	The teaching movies and documentaries are interesting	38	1	2.6	-	-	6	15.8	20	52.6	11	28.9

The table implies international students are inquisitive to learn the culture of the host country, China. They indicated that they are studying the Chinese culture course not only because it is a compulsory course, but also they are interested in learning culture they are living in. In this case, 68.42% of respondents are studying the course not because it is obligatory but because they are interested in it. This shows that international students are nose-y and open-minded to learn the culture they live in during their study period. 73.68% of the participants confirmed that the course is informative. It gives information about the culture and history of the Chinese together. 94.73% of respondents don't consider the course a burden. They consider it an informative and relevant course to take. The participants of this study also mentioned that studying Chinese culture is helpful to learn the Chinese language better. Majority of the respondents claimed that they are learning the Chinese culture course not only to get a pass status but also to really know about the Chinese people culture and history. This, in turn, is helpful to better understand and perform in the Chinese language course. Nault (2006) also reasoned that the link between language and culture is significant in foreign language education because culture plays a role in helping learners to be proficient in the target language.

Research Question-2: What interest international students towards learning Chinese culture course?

The second objective of the study was to examine what interest the international students in studying the Chinese culture course. The course is obviously a compulsory course, but beyond this what is there that interests the learners. To find the answer to the question respondents were asked to rate their agreement or disagreement with the questionnaire. The first question was about the cultural contents of the course book. In response to this question, 76.31% of the respondents testified that the contents of the course book are interesting. The response indicates that the Chinese course material has interesting contents that international students can enjoy. Having interesting contents in course materials like this one is very important to win the interests of learners. The participants also boldly indicated the attributes of the course instructor who made the course more attractive to the learners. They liked the movies the instructor brings to class for teaching the course. In line with this a study by Dema Moeller (2012), argued that technologies like movies and audios have changed the nature of instruction make learning more effective and engage students actively. The tabular presentation of the respondents' opinion is given in the table above. As a result, 68.42% of the respondents indicated that they study the course very seriously like any other course whereas 23.68% didn't show their position and the remaining 7.9% were not in agreement with this conclusion. In addition to this 78.95 % of the respondents believe that learning the Chinese culture would make their stay here in China simple and easy. Here again, 15.79% didn't show their position. The remaining respondents are opposed to this inference.

Research Question 3: What challenges do students face when learning Chinese culture?

When asked in the open-ended questionnaire about the challenges of studying the Chinese culture course, most of the respondents mentioned the evening class time along with the weather condition, which is colder at night and the bulk content of the course material as challenges in following up the course. Respondents also motioned that memorizing the years, dates and names of emperors in the history of China is difficult. However, almost all of the respondents indicated that they are very much interested in learning and to know about Chinese history, culture and geography. The data obtained from the interview also compliment this opinion. Still, the weather and the class time are mentioned as challenges. The interviewees of the study also motioned class time is not enough compared to the course material content to be covered. Thus rushing to cover the content is another problem.

V. Conclusions

The study was basically conducted to answer the following three guiding questions:

1. How do international students perceive learning about the Chinese culture course?
2. What interest international students towards learning Chinese culture course?
3. What challenges do students face when learning the Chinese culture course?

The Chinese culture course was fundamentally commenced to familiarize international students with the culture, history, and geography of China. It is one of the fundamental courses for every scholarship students. However,

this requirement alone doesn't make the course delivery fruitful. The learners' interest towards learning the course is very important. And that is what this study looked into. According to the finding discussed in the preceding section, international students aren't studying only because the course is compulsory but also because they are interested in learning the Chinese culture, history and geography. The study also mentioned that the participants perceived their participation positively in the course, for the course is informative. They considered it as a good opportunity to learn Chinese culture and history. The investigation again indicated that the learners believed that learning the Chinese culture helps in studying the Chinese language because culture and language are intertwined. Studies on teaching culture have also shown that language and culture are closely related (Kuang, 2007; Schulz, 2007; Brown, 2007; Savignon & Sysoyev, 2005; & Tang, 1999). The study determined that international students at Northeast Normal University are intrinsically motivated to learn the culture of the hosting country-China. In addition to these, the content of the course book, the teacher's lecture, the movies and documentaries the teacher brings to class for teaching purpose made the international students interested in the course. That means instructional interventions applied by the teacher to elicit and stimulate student motivation are effective. Furthermore, it is mentioned that doing educational field trips at least around the campus area including the museums in Changchun and Jilin would make the course delivery more effective by enhancing students' motivation and learning.

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The Profile of the Inmates' Adult Educator: A Greek Case Study

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Abstract

The inmates' adult educator implements the principles of adult education in the enclosed prison environment and makes efforts to reintegrate them socially. In Greece, inmates' adult educators mainly work in Second Chance Schools (SCS) operating in prisons. The purpose of this paper is to investigate the role of the inmates' adult educator at the Second Chance School of Chania Prison. The qualitative method was used in this research. According to the results of the survey, the inmates' adult educators of the SCS of Chania Prison believe they need to have knowledge of the principles of adult education as well as of the prison system. In addition, they perceive the skills to delimit their relationship with prisoners, empathic and problem-solving skills as decisive. Finally, the attitudes of accepting and respecting prisoners are fundamental for the inmates' adult educators of the SCS of Chania Prison.

Keywords: Prison Education, Role of the Inmates' Adult Educator, Second Chance Schools in Prisons

1. Introduction

Inmates' education is intended to improve the lives of inmates both during their sentence and after their release. Of course, the purpose of inmates' education is not perceived by everyone in exactly the same way. Thus, while Costelloe and Warner (2008) and Behan (2007) consider that the primary purpose of inmates' education is to reduce the devastating effect on prisoners of the incarceration, Magos (2014) highlights the transformational role of education in prison. On the other hand, Schuller (2009) points out that inmates' education should prepare inmates for professional rehabilitation and employment after serving the sentence.

Undoubtedly, inmates' education has a great value and multiple benefits for the inmates themselves, but also for the whole society. According to Tewksbury and Stengel (2006), inmates' education leads to increased self-esteem. Still, the chances for professional employment of inmates are 13% higher for those who have attended an educational program in prison comparing to those who did not attend (Rand Corporation, 2013). According to the Council of Europe (1990), inmates' education contributes a) to reducing the devastating consequences of the imprisonment of the prisoners, b) to compensating for the previous incomplete and negative educational experiences of the inmates before their imprisonment and c) the inmates' reformation.

The effectiveness of inmates' education is also considered to be of key importance at the macroeconomic level (Hrabowski & Robbi, 2002; Bazos & Hausman, 2004). Thus, Langelid et al. (2009) report that inmates' education costs only one packet of cigarettes per day for each inmate in Scandinavia. In the study (meta-analysis) of Rand Corporation (2014) in the USA, the main finding is that inmates' education is not only effective but also cost-effective. The European Commission (2011), however, points out that in inmates' education should be adopted not only an economically beneficial (Cost Benefit Analysis) but also a social approach.

Of course, many obstacles arise in inmates' education. First of all, from the existing educational inequalities experienced by the inmates as students in the formal education system (Vergidis, 2014) and secondly from the prison conditions themselves (Tsimboukli & Fillips, 2010; Papaioannou, Anagnou, & Vergidis, 2016). In addition, factors that impede the learning process in prisons are the bureaucratic procedures of the prisons, prison regulations, bad behavior and disobedience of prisoners and harassment of educators (Kabeta, 2017).

As far as the relation between the inmates' education and recidivism is concerned, it seems to be inversely proportional. Rand Corporation (2013) concludes that inmates who participated in educational programs in prisons are 43% less likely to recidivate after their release than those who did not participate in such programs. However, Ubah (2005) and Gaes (2008) consider that a variety of factors affecting social reintegration should be explored, not just the rates of recidivism in crime. Also, Costelloe and Warner (2008) in a critical view of the concept and function of the prison consider that the prison institution itself "nourishes" the crime and leads to recidivism of the prisoners. Finally, Wright (2014) reports that the close linking of inmates' education with low rates of recidivism is explained by the fact that the same process of education limits the devastating consequences of the stigmatization of the identity of the prisoners.

2. The inmates' adult educator

Despite the importance and effectiveness of inmates' education, especially in relation to reducing recidivism, inmates' adult educators do not enjoy special professional recognition either high appreciation (Sayko, 2005).

The incentives of inmates' adult educators to engage in this profession are usually internal and have as a common denominator the willingness to offer to the vulnerable group of the inmates (Bannon, 2014).

The inmates' adult educator plays at the same time many, different and demanding roles. At the same time, the inmates' adult educator must be a) an adult educator, b) an educator of a vulnerable social group, c) an inmates' educator and d) an educator at a Second Chance School in some cases, such as in Greek reality.

2.1 The role and qualifications of the inmates' adult educator

First of all, it is remarkable that the inmates' adult educators are not prepared for the cultural shock that they will experience within the prison environment (Wright, 2005). Also, many are inadequate to cope with inmates with learning difficulties, behavioral problems and disabilities (Kvarfordt, Purcell & Shannon, 2004, cited in Ely, 2011). Also, several inmates' adult educators have been trained with old fashioned and more inefficient methods (Desir & Whitehead, 2010; Bayliss & Hughes, 2008).

Undoubtedly, however, the role of the inmates' adult educator is very important and decisive, especially in the relationship between inmates' education and low rates of recidivism (Wright, 2014).

The success of the inmates' adult educator lies in his role as mediator, that is to say in his ability to perceive the difficulties of the group and transform them into learning opportunities (Mezirow, 2007; Giannakopoulou, 2008).

Humor, dignity, real interest and respect for inmates are mentioned as necessary qualifications of the inmates' adult educator (Carr, 2000; Keen & Woods, 2015).

Nahmad-Williams (2011) reports that the necessary skills an inmates' adult educator must have, according to the results of her research in England, are a) the ability to cope with the inmates' attempt to manipulate the educators, b) the ability to understand the security conditions, c) the demonstration of a strong character, d) the ability to work with many restrictions, e) the ability to adapt to work status for two supervisors (education and penitentiary institution) and f) the ability not to disclosure personal information.

Inmates' adult educator should also stimulate the human existence and the dignity of his pupils (Jarvis, 2005). In fact, in prisons, where the population is not uncultivated (Vergidis, Asimaki & Tzintzidis, 2007), this translates as a tremendous need for the educator to have intercultural skills. It is therefore imperative that the inmates' adult educator demonstrates respect and acceptance to inmates with a different background (Desir & Whitehead, 2010; Magos & Simopoulos, 2010).

In addition, Walker (2016) considers that educators should not constantly ask about their inmates, their lives and behavior, but familiarize themselves with the mystery surrounding the inmates' lives and focus on their work purpose.

Gehring and Wright (2006) propose some reflective principles and practices for inmates' adult educators, stressing that the one-dimensional and dogmatic educational principles and practices such as "all fit for everyone" or "that's always the right one" fail.

Finally, Sayko (2005) refers that the inmates' adult educators should be careful not to allow the hostility of the prison environment to become part of their educational attitude.

2.2 The role of the adult educator in SCS

Inmates' adult educator in Greece, as an SCS adult educator, should promote the labor and social inclusion of inmates, negotiate their needs, interests, and expectations, encourage them, develop a positive relationship with them, and promote their active participation in the educational process (Vergidis, 2003).

Also, the European Commission's report on SCS points out that demonstration of empathy, compassion and the development of constructive relationships between educators and trainees is a determinant factor for the successful operation of SCS (Commission of the European Communities, 2001).

3. Second Chance Schools in Greek Prisons

There are currently 11 SCS in Greek prisons. More specifically, in 2004, the innovative institution of SCS was also introduced in prisons and the first school operated in the Judicial Prisons of Larissa. Since 2005, SCS has been established in several prisons in the country, such as Korydallos Attikis, Grevena, Trikala, Nigrita Serres, Diavata Thessaloniki, Patras, Eleonas Thebes, Domokos Fthiotida and Malandrino Fokidas. From 2016, the 2nd SCS of Chania city has been operated in the Agia prison (Crete).

Nevertheless, according to Anagnou and Vergidis (2008), although theoretically all SCS (inside and outside prisons) should be included in the strategy of social and professional development and social exclusion, this happens only with the case of SCS in prisons.

3.1 The SCS of Chania Prison

The SCS of Chania Prison is the 2nd SCS of Chania city and operates from 2016 at the General Detention Department "Crete I" in Agia town (Chania). Due to the recent startup of the school, the data for educators and inmates is not much. Thus, the students in the school year 2017-2018 were about 42 inmates in the two cycles of

studies. Their age ranged from 19 to 60 years. Inmates of Chania Prison often transfer to Korydallos Prison in Athens.

4. Research methodology

This section presents the research methodology.

4.1 Research question

The research question was: What knowledge, skills, and attitudes do the inmates' adult educators of the SCS of Chania Prison think are necessary in order to cope with their role?

4.2 Research Method - Strategy - Research Tool

The data collection method was qualitative because the purpose of the research is to investigate and understand a central theme (Creswell, 2011). The research strategy followed is a case study, since it concerns the inmates of a particular SCS, that of Chania Prison during the school years 2016-2017 and 2017-2018. According to Robson (2010), a case study is more a research strategy than a research method and focuses on a phenomenon in its context. This strategy was chosen because the SCS educational framework and the prison environment are very important and also difficult to be accessed by the researcher (Yin, 2003).

According to Mason (2003), the data collection technique or better the data production technique was the semi-structured interview, a tool that enables the sequence of questions to be modified (Cohen & Manion, 1994), the choice of emphasis in the most essential aspects of each respondent (Fylan, 2005; Robson, 2010), but requires critical communication skills from the interviewer (Galletta, 2013). Therefore, this tool has been chosen as the most appropriate to highlight the views of the participants.

4.3 The participants in the survey

The participants of the survey were the inmates' adult educators of the SCS of Chania Prison during the school years 2016-2017 and 2017-2018. All participants (convenience sampling) were 12 inmates' adult educators, 4 of whom worked in the SCS of Chania Prison during the school year 2016-2017, while 8 worked in the school year 2017-2018. These include the SCS Director and the Career Advisor. With regard to the work situation of the inmates' adult educators, 4 were permanent educators, 4 were hourly paid, and the rest 4 were volunteers. As for gender, 3 educators were men and 9 women. The age of the participants ranged from 33 to 58. Undoubtedly, the participants in this survey do not represent the entire population of adult inmates of SCS in Greece, and consequently, the research results are not generalizable.

4.4 Data analysis method

Content analysis was used as the method of analyzing the data resulting from interviews. In the thematic analysis, the focus is on concepts, meanings or themes, which refer to the phenomenon under study and how it is perceived by the participants in the research (Tzani, 2005). Also, the content analysis includes the process of locating, coding and categorizing complex and often contradictory data (Papanastasiou & Papanastasiou, 2014). Furthermore, the thematic content analysis allows quantification of the results (Trowler, 1996; Vamvoukas, 2002) which was attempted in this research.

5. Results

This section presents the results of the survey.

5.1 Knowledge necessary for the work of the inmates' adult educators of the SCS of Chania Prison

The knowledge the inmates' adult educators of the SCS of Chania Prison consider necessary, and the frequency of their reporting in the survey are summarized in Table 1.

Table 1. Knowledge necessary for the inmates' adult educators of SCS of Chania Prison (school years 2016-2017 and 2017-2018)

Knowledge Category	Frequency of reports
Principles of adult education	6
Prison system/imprisonment effects	6
Teaching subject	3
Modern educational techniques	2
Behavioral management of inmates	1
N=12	

As expected, half of the sample educators indicated that they perceived the knowledge of the principles of adult education as necessary for their work. Thus, Inmates' Educator 1 (IE1) considers that the knowledge of adult education is necessary for inmates' adult educators, as well as for adult educators who work in an SCS out of prison: "Look, there are no differences between inmates and non-inmates in an SCS. [...] That is knowledge of adult education".

Also, half of the educators of the SCS of Chania Prison made special reference to the knowledge of the prison context and the difficulties involved in the imprisonment. For example, IE9 states that she needs to know the boundaries and the ethics of the prison area: "It is certainly good to know a little about the context of the prison [...]to know the boundaries and the ethics of an area", while IE11 focuses on the knowledge of the difficulties involved in the imprisonment: "We must first know the difficulties of imprisonment. How is it to live in a prison? "

In addition, three educators have clearly stated that the knowledge of their teaching subject is essential for the effective completion of their work. Thus, according to IE8, the educator must be fully trained in his / her cognitive subject: "The educator should know first of all his / her subject."

Two educators referred to the need to learn modern teaching techniques for adults. As IE4 stated: "Certainly you should have a very good knowledge of modern teaching techniques aimed at adults and of course an inmate with psychological characteristics and imprisonment you cannot approach him with a simple lecture or even with a dry dialogue."

Also, one answer concerns more specific issues, such as knowledge of the behavior of inmates. In particular, IE7 states for the inmates' educator that: "He/She must know precisely the way in which he/she has to manage their behavior not only in the classroom but also outside the classroom of his / her students."

In the next section, we present the results regarding the skills that the inmates' adult educators of the sample consider necessary for the implementation of their work.

5.2 Skills necessary for the implementation of the work of the inmates' adult educators of the SCS of Chania Prison

The skills the educators consider necessary for the implementation of their educational work in the SCS of the Chania Prison are presented aggregated in Table 2.

Table 2. Skills necessary for the inmates' adult educators of SCS of Chania Prison (school years 2016-2017 and 2017-2018)

Skills category	Frequency of reports
Delimitation of the relationship between educators and inmates	5
Empathy	4
Flexibility	4
Problem Management	3
Understanding	3
Interpersonal skills	3
Use of active and participatory educational methods	3
Creating an interactive framework	2
Mobilization of interest	1
Creating Micro Instruction	1
Speech skills	1
Conflict resolution	1
Balance between the two contexts (education/prison)	1
N=12	

First of all, a basic skill for 5 of the 12 educators is the ability to set and maintain limits on their educational relationship with the inmates. IE4 refers to the need to respect the limits with a clear example from the prison's daily education: "Another aspect [...] is the limits you put. Since it's a school, there must be some limits, i.e., the arrival time, the departure time, the duration of the break, whether the inmates will come in the classroom or get out of it. "

Another skill that the inmates' adult educator should have is the management of problems and situations. For example, IE5 states that educators should be able to manage their relationship with trainees: "... to handle various situations that may arise therein, in the relationship between educator and trainee. [...] over there the educator must have management skills, .. ".

IE5 refers to the need to have interpersonal skills: "Personal, interpersonal skills."

In addition, 4 of the 12 respondents underlined the importance of empathy. Characteristic are the words of IE3: "For a trainee in the SCS that is not appropriate... There we have to see it ... to have a little empathy and perceive it, to be able to interpret it. In the sense that they are people who may have their delinquency ... psychopathology, [...] have used drugs ... ".

The skill of flexibility is considered significant for 4 of the 12 interviewees. For example, IE6, referring to the heterogeneity of the prison population, argues that the educator should be flexible and adaptable to his / her teaching objectives: "to adapt teaching objectives to students who are highly heterogeneous, because they are from different countries, from a different cultural level."

At the same time, a skill reported by three respondents is the skill of using alternative educational techniques. Thus, IE10 states that the educator should avoid the teacher-centered style and adopt more student-centered techniques: "For teaching techniques, this teacher-centered style does not help anywhere. [...] More ... student-centered let's say procedures. "

A similar skill is underlined by 2 participants and involves creating ways of interacting within the group of inmate trainees.

Also, 3 of the 12 inmates' adult educators emphasize the importance of understanding skills. In fact, IE11 refers to Alan Rogers' advice: "This reminds me of Rogers' advice: Stop talking and listen. First, it is to be able to hear people and understand what they have to say to you. "

Individual skills are also mentioned. Thus, IE2 notes the skill of provoking the interest of inmates-trainees: "The role is to draw the attention of your class, [...] to find an incentive to convince them to try ...". In addition, IE4 considers necessary the inmates' adult educator's ability to balance between the prison and education system. As she reports: "Prison is a very difficult environment in which you are in very delicate balances ...". Also, IE6 quotes the skill of creating micro-instructions: "I need to know how to make a micro-instruction ...". IE8 mentions speech skills: "skills concerning the use of language," while IE12 emphasizes the importance of conflict resolution skills: "... some skills [...] are probably seminars for conflict resolution ... especially because there are [...] too many nationalities in prison conflicts may arise".

In the next section, we present the results regarding the attitudes that the educators of the sample consider necessary for the accomplishment of their work.

5.3 Attitudes necessary of the inmates' adult educators of the SCS of Chania Prison for the successful implementation of their work.

The attitudes an educator must have in the SCS of Chania Prison towards the inmates, and the educational process are presented in Table 3.

Table 3. The necessary attitudes of the educators of the SCS Prison of Chania (school years 2016-2017 and 2017-2018) for the successful implementation of their work

Attitudes category	Frequency of reports
Acceptance	7
Respect	5
Sincerity	2
Friendly mood	2
Open to the educational process	2
Without fear or pity	2
Love	2
Discretion / Confidentiality	2
Responsibility	2
Commitment to the project	1
Consistency	1
Sensitivity	1
Other	1
N=12	

First of all, an important attitude for 7 of the 12 educators is the attitude of accepting inmates. IE4 considers that the educator must first accept the inmate, in order to become accepted by the inmate-trainee: "... to accept basically that his world is a bit different from yours [...] So, you have to enter [...]their own way of thinking to be able to communicate and become accepted. "

Also, 5 of the 12 educators underline the importance of respect for inmates and the prison context. IE9 understands respect as follows: "Respect for us and respect for prisoners."

IE5 states that the educator should be open to the educational process: "to be open to the process of education."

In addition, IE2 states that educators should not be afraid of or sorry for the prisoners: "...there must be no fear[...] or pity. We are not to be sorry for them".

IE2 is also in favor of a friendly attitude: "The relationship between educator and student in a friendly, polite, yet delicate way."

Also, IE7 stresses the importance of sincere attitude towards the inmates: "I have come to the conclusion that the attitude towards my students must be characterized by sincerity."

Two educators consider it necessary to love their profession. IE11 refers to the importance of this attitude: "Ah, you must love what you do."

Also, 2 educators refer to the attitudes of discretion and confidentiality. For IE2, discretion is very important: "... discretion certainly [...] we do not ask or if they tell some personal data you try to pass them by". Concerning confidentiality, IE11 points out: "You have to be discreet."

IE12 considers that the educator should be characterized by a commitment to their duty and consistency: "they must certainly be very committed to their work [...] to be consistent with what they say".

IE8 considers that the educator should operate without taking into account the prison environment and the conditions of detention: "They should forget that they are prisoners [...] in the program I just try to remove the prison environment". On the contrary, IE7 supports the demonstration of sensitivity to prisoners: "You must be sensitized to feel these people."

Finally, two educators report a commitment to responsibility. IE2 considers that anyone who chooses to work in prison education to avoid a lot of work will fail: "... a teacher who will see the SCS in prison [...] as an opportunity, [...] to shirk, will not succeed there ".

Below are the conclusions of the survey.

6. Conclusions

This section summarizes the main findings of the survey:

- Inmates' adult educators consider that the necessary knowledge for the implementation of their work in the SCS of Chania Prison concerns:
 - a) principles of adult education,
 - b) prison system/consequences of imprisonment. The conclusion is also confirmed by other researchers (Wright, 2005; Nahmad-Williams, 2011; Lekaditi, 2012; Zygogianni, 2014; Walker, 2016)
 - c) the cognitive subjects being taught,
 - d) modern educational methods of adult education. The importance of modern educational methods has been highlighted by other researchers (Vergidis, 2003; Gehring & Wright, 2006; Desir & Whitehead, 2010; Nahmad-Williams, 2011),
 - e) behavior management of inmates-trainees. The finding is confirmed by other studies (Lekaditi, 2012; Patrie, 2017).

Our sample did not mention knowledge of the local labor market and the conditions of local society (Karalis & Kokkos, 2008; Vergidis, 2008; Taliadorou, 2008; Demunter, 2003).

- The skills that the inmates' adult educators of the SCS of Chania Prison consider to be necessary are

primarily skills:

- a) of delimiting their relationship with inmates-trainees. Similar findings have been reported by the West Virginia Adult Education (2017), Gasouka (2006) and Zygogianni (2014),
- b) of empathy. This skill has been highlighted by the European Commission (2001) and by many researchers (Wright, 2005; Jameson, 2008; Zygogianni, 2014; Touloumi, 2016; Christoforou, 2016; Patrie, 2017),
- c) of flexibility (Ely, 2011),
- d) regarding problem management. Also reported as necessary by Tsimboukli (2008), Nahmad-Williams (2011) and Patrie (2017),
- e) of understanding,
- f) of creating a context of interaction,
- g) of using active and participatory education methods,
- h) interpersonal skills (Themeli, 2010).

Skills, which are mentioned less often are: (a) mobilization of interest (Keller, 2000; Desir & Whitehead, 2010), (b) use of micro-instructions (not identified in similar surveys), c) speech skills (Gasouka, 2006), d) conflict resolution (Courau, 2000) and e) balance between two contexts, education and prison (Wright, 2004; Nahmad-Williams, 2011).

In this research skills that have not been recorded by the sample are intercultural skills (Vergidis, Asimaki & Tzintzidis, 2007; Magos & Simopoulos, 2010), humor skills (Carr, 2000; Nahmad-Williams, 2011; Keen & Woods, 2015) and skills of connecting the content of education with local labor market and conditions of local society (Karalis & Kokkos, 2008; Vergidis, 2008; Taliadorou, 2008).

- The attitude of inmates' adult educators of the SCS of Chania Prison towards the inmates and the educational process should be characterized by:
 - a) acceptance. This is confirmed by several researchers (Wright, 2005; Tsimboukli & Fillips, 2010; Desir & Whitehead, 2010; Freire & Shor, 2011; Zygogianni, 2014; Touloumi, 2016),
 - b) respect. The attitude of showing respect is also found in other similar surveys (Carr, 2000; Zygogianni, 2014; Keen & Woods, 2015; Touloumi, 2016; Papaioannou, Anagnou, & Vergidis, 2016);
 - c) sincerity,
 - d) friendly mood,
 - e) love,
 - f) discretion and confidentiality. Discretion and confidentiality are considered necessary by Nahmad-Williams (2011), Zygogianni (2014) and West Virginia Adult Education (2017),
 - g) commitment to the work and consistency,
 - h) sensitivity and responsibility. The responsible and sensitive attitude of educators is highlighted by Ely (2011) and by Bennett (2008).

Also, the educator should be open to the educational process, try to ignore the consequences of imprisonment and not to show fear or pity for the prisoners. These two last attitudes have not been found in other similar surveys.

In conclusion, as shown by the reports of the sample of this research, the role of inmates' adult educators is not only very demanding but also crucial for the outcome of the educational process in an SCS operating in prison. In order to cope with their role, it is necessary that the educators have a set of appropriate knowledge, skills, and attitudes. Therefore, crucial is both the appropriate choice of inmates' adult educators and their continuous training, in order to cope with their complex work.

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Implementation of Think-Pair-Share (TPS) Cooperative Learning Model to Improve the Economic Learning Achievements

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Abstract

The aim of the research was to determine the improvement in economic learning achievements of senior high school students in Pekanbaru, Indonesia through the application of the cooperative learning model of the think-pair-share type with comic media. This research was conducted from July 19 to August 7, 2017. The subjects of this study were 36 students consisting of 16 male students and 20 female students. This was a classroom action research (PTK) with 2 cycles. The data collection technique was done by giving a final test at the end of each cycle and to observe the activities of students and teachers during the learning process using observation sheets. The data were analyzed descriptively. The findings concluded that the cooperative learning model of think-pair-share type could improve the students' economic learning achievements. The improvements could be found in the first cycle with an average percentage of 86% and 83% with classical mastery, then this improved more in the second cycle with an average percentage of 90% and with classical mastery of 94%. The teacher activity in the first cycle is quite perfect criteria with the percentage of 17, 5% and increased in the second cycle with perfect criteria with the percentage of 23, 3%. Then the increase in student activity in the first cycle was 82, 5% and increased in the second cycle by 95, 5%. From the above findings, it can be concluded that the application of the cooperative model of think-pair-share type along with comic media can improve economic learning achievements.

Keywords: Think-Pair-Share, Media Comics, Learning Achievement

1. Introduction

Education is an effort or effort made consciously and planned to increase the value of the behavior of a person or society, from a certain situation to a better one. Education plays an important role in the provision of quality of human resources, besides it determines the success or failure of human resources development because quality education will produce qualified human resources. Thus, education occupies an important position in the development and progress of a nation. The goal of national education will be realized, one of which is the process of teaching and learning activities through formal education in schools and non-formal education.

According to Ayeni (2018) that the state government in collaboration with other relevant stakeholders in education sector should employ an adequate number of qualified teachers, provide adequate learning facilities and materials, and organize capacity building workshops to improve principals' and teachers' skills in strategic management for sustainable improvement in students' academic performance.

Education is inseparable from the learning process carried out, because the learning process is one of the curriculum activities carried out by educational institutions in providing knowledge to their students so that students can achieve educational goals, namely good learning achievement. In order to achieve the goals of education and learning well, there is a need for changes in teaching and learning activities, and Economics is part of the education curriculum which also has an important role in efforts to improve the quality of education. Given the importance of studying economics, it is necessary to have serious handling, in this case, is the improvement of the quality of learning Economics departs from achieving better learning achievements.

The identification of problems included that many student scores were under minimum scores (KKM), students are less interested in reading books and less active students. The research objective was to improve students' economic learning achievements in economic subjects through cooperative learning of Think-Pair-Sharing by comic media.

According to Slameto (2003: 2) that learning is a business process carried out by a person to obtain a change in new behavior as a whole, as a finding of his own experience in interaction with his environment. The teaching and learning process takes place in a condition called educational interaction, the end of the interaction will be obtained learning achievements. Learning achievements have an important role in the learning process. The process of evaluating learning achievements can provide information to teachers about student progress in an effort to achieve learning goals.

Cooperative Learning Model is learning of students in developing their understanding and attitude in accordance with real life in society so that working together among fellow group members will increase motivation, productivity and learning gain (Solihatin and Raharjo, 2007: 5). While according to McCloud in Fauziyah (2010), comics are images that convey information or produce an aesthetic response for people who see it.

From the phenomena, previous researches and theories as above, it can be concluded that comics are media that can share information with their readers.

2. Method

2.1 Research Design

This research is Classroom Action Research. According to Sanjaya (2009:26) that Action Research is a process of studying learning problems in the classroom through self-reflection in an effort to solve these problems by doing various planned actions in real situations and analyzing each influence of treatment that is. The subjects of this study were 36 high school students of SMAN 10 Pekanbaru, consisting of 16 male students and 20 female students. This research will be conducted in June 2017 until completion.

2.2 Data Analysis

The data analysis technique used in this study is descriptive analysis, aimed at describing data about the activities of teachers and students during the learning process and data about the mastery of economic learning achievements in students.

Student learning activities are students' responses to the activities of teachers who carry out learning activities using the TPS cooperative learning model which includes 6 indicators with 36 students and uses 5 classifications with the following criteria:

$$P = f / N \times 100\% \text{ (Sudjono, 2006: 43)}$$

Description :

P = Percentage Number

F = Frequency of student activity

N = Number of students

Table 1. Intervals and Categories of Student and Teacher Activities

% Interval	Category
91 – 100	Very Good
90 – 80	Good
79 – 60	Enough
≤ 59	Less

Source: Purwanto in Yuliardani (2009: 40) modified by researchers based on KKM

Teacher activity was obtained from the teacher's observation sheet in the implementation of the TPS type cooperative learning model including 6 indicators and 5 classifications by giving a score of 1 to 5. The maximum score is 30 (6 × 5) and a minimum score of 6 (6 × 1), then the following interval:

$$\text{Interval} = \frac{\text{Maximum Score} - \text{Minimum Score}}{\text{Classification Number}} \text{ (Juwairiah, 2009: 26)}$$

Analysis of data about the mastery of student learning achievements is done by comparing the scores of student learning achievements that follow the application of the cooperative learning method type Think-Pair-Share with the minimum mastery criteria (KKM) applied which is 80.

Based on (KKM) set by the teacher of Economics study, it is said to reach (KKM) when getting learning achievements ≥ 85 and students are said to complete individually. Data on mastery of student learning achievements both individually and classically will be analyzed using the following techniques. The level of mastery of student learning individually is measured using the formula:

$$PI = \frac{R}{SM} \times 100\% \text{ (Purwanto, 2004: 201)}$$

Description :

PI : Percentage of mastery in individual learning

R : Score obtained by students

SM : Maximum score

The level of mastery of student learning is classical. Class success is achieved seen from at least 85% of the number of existing students and students master the subject matter with a maximum value of 85, and classical mastery can be measured by the formula:

$$PK = ST / N \times 100\% \text{ (Purwanto, 2004: 201)}$$

Description :

PK : Percentage of classical learning mastery

ST : Number of students completed

N : Number of all students

Performance Indicators

- Learning achievements. The ability of students individually to absorb the subject matter given is at least achieving minimum scores (KKM) mastery $\geq 85\%$.

- Classical learning mastery reaches $\geq 85\%$ of students in that class have completed individual study or scored ≥ 80 .

3. Research Findings and Discussion

3.1 Research Findings

3.1.1 Preparation / Planning Phase

In this preparation phase or at the planning stage, the researcher prepared an instrument consisting of learning tools and data collection instruments. Learning devices consisted of Syllabus, Learning Implementation Plans (RPP) which were guided by syllabus made in accordance with the TPS, LKPD (*Lembar Kerja Peserta Didik/Students' Work Sheet*) and Comic learning model prepared by the researcher. In this preparation stage, the teacher first introduced the learning system to be used, namely Think-pair-sharing with comics at the subject of the learning.

3.1.2 Implementation Phase

At the stage of implementation of the action in this study carried out in 2 cycles. Each cycle consisted of 2 meetings and 1 repetition.

a) Implementation of Cycle I

1st meeting (Wednesday, July 19, 2017)

The implementation of the action at the 1st meeting was held on Wednesday, July 19, 2017, with 36 students present. The allocation of learning time provided at the first meeting is 2 x 45 minutes, the material to be discussed and taught at this meeting was "the notions of economic development, economic growth, economic development goals, patterns and stages of national development, success and failure of Indonesia's economic development" guided in RPP-1.

The teacher provided reinforcement on the results of the discussion. The activity of students at the time of sharing was not good enough. In the teaching and learning process today the activities of students as a whole were also not well implemented. For student activities can be seen from the observation sheet of student activity.

At the end of learning the teacher gave conclusions from the material that has been studied. Then the teacher gave an award in the form of applause to the group that completed the task correctly and correctly and the group that dared to appear and read the results of their assignments.

2nd Meeting (Monday, July 24, 2017)

The second meeting in the first cycle was held on Monday, July 24, 2017, with 36 students present. The material discussed and taught at this meeting was "economic growth and the factors that influence economic growth" which were guided by RPP-2 and the allocation of learning time at the second meeting is 2x45 minutes.

At the end of the meeting, the teacher gave a conclusion to the learning subjects. Then the teacher gave an award in the form of applause to the group that completed the task correctly and correctly, and the group that dared to appear and read the results of their assignments. Before the teacher closed the learning activities, the teacher explained to the students that at the next meeting a cycle I would carry out exam I. It was expected that students prepared themselves to learn the material they had learned at the previous meeting.

b) Implementation of Daily Examination I in Cycle I

3rd meeting (Wednesday, July 26, 2017)

Based on the learning achievement data in the first cycle, it was obtained information that of the 36 students to achieve the minimum mastery criteria (KKM) as many as 30 students (83.3), while for students who had not reached KKM as many as 6 students (16.6%) with the percentage of classical mastery amounting to 0%. Then it

can be concluded that the learning achievements in the first cycle had not achieved classical mastery which was 85%. For students who had not yet reached the KKM, they must follow the remedial to get minimum mastery.

c) Implementation of Cycle II

1st Meeting (Monday, July 31, 2017)

The 1st meeting in the second cycle was done on Monday, July 31, 2017, with 36 students present, and the same allocation of learning time was provided, namely 2 x 45 minutes. The implementation of a class action in the second cycle was to improve the weaknesses contained in the implementation of the action in the first cycle in accordance with the results of reflection, at the first meeting in the second cycle of learning activities began with warming up about the factors that influence economic growth. Furthermore, the teacher continued the lesson based on RPP-3 with the material to be taught at this meeting, namely the "APBN / APBD and State / Regional Revenues and Expenditures."

The first activity during the learning process took place, namely by greeting, attending students. The teacher conveyed an apperception about the previous lesson, namely national development is a series of efforts carried out continuously in all areas of life of the community, nation, and state to lead to a better situation. The short-term goal of national development was to improve the standard of living, intelligence, and welfare of the people who were more just and prosperous and more equitable and to lay a strong foundation for the next stage of development. Then wrote down the topics of learning namely, APBN / APBD, then shared comic media, and conveyed the learning objectives that students must achieve namely students were able to know the influence and importance of the budget for the central and regional governments, students were also expected to know the sources of state income and APBN / APBD.

2nd Meeting (Wednesday, August 2, 2017)

The implementation of the second meeting in the second cycle was carried out on Wednesday, August 2, 2017, with 36 students present, with the allocation of learning time provided at the second meeting of the second cycle was still the same, namely 2 x 45 minutes, material that was discussed and taught at this meeting to discuss the APBN / APBD and State / Regional Revenues and Expenditures based on RPP-4.

At the end of learning the teacher gave conclusions from the material that had been studied. Then the teacher gave an award in the form of applause to the group that completes the task correctly and correctly and the group that dared to appear and read the results of their assignments.

Implementation of Daily Examination 2 in Cycle II (Monday, August 7, 2017)

Implementation of daily test 2 in cycle II was held on August 7, 2017, with 36 students present. The daily test questions I were in the form of the objective as many as 10 questions and essays of 5 questions, which were done individually in a predetermined time which was 90 minutes. The implementation of the daily exam was conducted on Monday, August 7, 2017. The daily results of the exam were examined and given a score based on alternative answer keys. After the learning achievements data on the daily test 2, obtained by students who have graduated in the excellent category as many as 25 students (69.4%). The good categories were 9 students (25%), enough categories were 2 students (5.5%), and the poor categories was 0 student (0%).

Based on the learning achievement data in cycle II, it was obtained information that of 36 students who achieved minimum mastery score (KKM) as many as 34 students or equal to (94.4%), while for students who had not reached the minimum mastery as many as 2 students or equal to (5.5%), with a percentage of classical mastery of (94.4%). Then it can be concluded that the learning achievements in the second cycle have reached the standard of classical mastery which is 85%. For students who had not reached the minimum mastery criteria (KKM), they must follow remedial (improvement) to obtain individual mastery.

3.1.3 Observation Phase

From the observations in the first meeting there were some information obtained such as, learning activities that had led to the cooperative learning model type TPS were quite good, but the attention of each student's teacher was not maximal, other than that students were still not ready to receive lessons, students had not actively asked

for difficulties to the teacher, and students cannot respond to the results of the discussion. So that makes them a little awkward in conducting discussions. While the second meeting was informed that the TPS type learning activities were good, the teacher's attention of each student was good enough even though not yet fully, students were ready to receive lessons. Students have begun to show courage in expressing their opinions and responding to the results of group discussions.

Then, from the observations at the meeting of the second cycle, the cooperative learning model of the TPS type that was applied had proceeded as desired. Students have also been able to work together with good enthusiasm and show a sense of togetherness in the group. In addition, teacher activities that guide students so that teaching and learning activities run well so as to produce good learning achievements.

3.1.4 Reflection Phase

From the observations of researchers, during the action for the second meeting. Inappropriate planning like the teacher was not maximal in monitoring students, the teacher's attention to each student is also not optimal, when working on the LKPD, the implementation time was not in accordance with the initial planning, there were still many students who were not on time in collecting their assignments, lack of good cooperation with group members, because students are accustomed to working in collaboration with close friends and lack of renewal between them, making them a little awkward in conducting group discussions.

Then, plans carried out by researchers to improve actions were that the teacher must guide and monitor students as carefully as possible so students can be active in learning activities, good time management is needed to organize learning activities especially in terms of time utilization. So that it is in accordance with the RPP and Optimizing the learning atmosphere that leads to the TPS type cooperative learning approach.

Based on the results of observations during the action in the second cycle, the results of reflection in the second cycle were the learning process did well, students are already active and enthusiastic in learning activities, effective use of time when learning activities take place, so that it runs according to planning, development of the value of students' social skills. This can be seen where students have been able to mingle, cooperate very well and show a sense of togetherness in the group, and the learning atmosphere has led to the TPS type cooperative learning approach and learning achievements achieved by students improved.

After completing the teaching and learning activities through Think-Pair-Share learning model steps that included the reflection phase, the students' performances in doing the tests had shown better improvement. The line graphs below present the students' achievements during the test in cycle 1 and 2.

Table 2. Students' Achievements in Cycle I and Cycle II by Implementing *Think-Pair-Share* Cooperative Learning Model with Comic Media

Cycle	Students' Number	Quantity of Passed Students	Quantity of Not Passed Students	Percentage of learning mastery	Categories
Before Action	30	23	13	63%	Not Pass
Cycle I	36	30	6	83%	Not Pass
Cycle II	36	34	2	94%	Pass

Source : Research Data, 2017

Student learning mastery in economic subjects in the first cycle with the application of TPS methods accompanied by comic media can be found from the less students who did not pass the test while learning mastery of students in the second cycle has increased, only 2 students have entered C category or not completed. Classically complete with 94%.

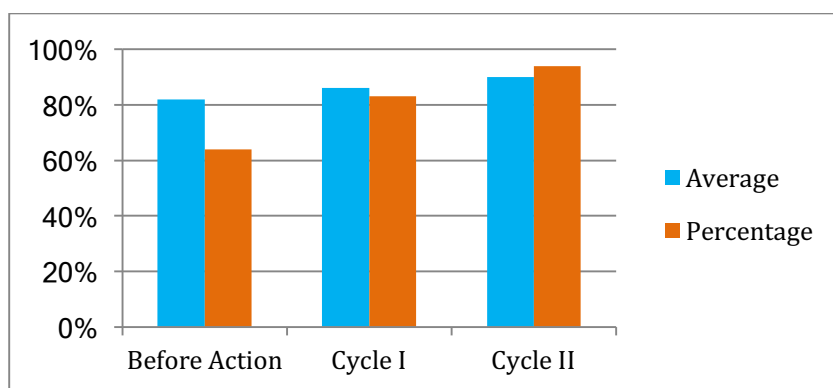
The learning mastery before action research, the cycle I and cycle II showed improvement. Before the program, there were still many students who had not yet finished or entered into category C, and there were 13 students. In the first cycle, there was a decrease in students entering the C category, namely, there were 6 students, but classically it was not completed, because the classics obtained were only at 83%. But in the second cycle,

students experienced a very good increase in learning achievements, students who entered category C were only 2 students, and the classical number was 94% which meant completing classically.

4. Discussion

After analyzing the data about the application of the Think-Pair-Share type learning model with comics, the discussion of the study was presented. From the analysis of the data shows that there was an improvement in student learning achievements on economic subjects after the class action was carried out through cooperative learning type Think-Pair-Share. This can be seen from the increase in individual learning achievements and the mastery of classical learning achievements before and after the action research cycle I and cycle II. The value of classical student learning achievements before PTK was 64%. The low student learning achievements before action research because the teaching and learning process carried out was still centered on the teacher, so students tended to be passive and were less active in learning. The lack of students' desire to read books and listen when the teacher was explaining learning material, lazy students record material explained by the teacher. This was reinforced by Djamarah and Zain (2010: 46), in teaching and learning activities, teachers are not only fixated by using only one method, but teachers should use a variety of methods so that the learning process is not boring and can attract students' attention so that the learning process goes well.

Graph 1. Comparison of Students' Achievement Scores Before Action, Cycle I and Cycle II



The cognitive scores of the cycle I and cycle II was obtained from daily test scores. The percentage of daily tests in the first cycle is 83%, but there are still 6 students who have not yet reached KKM which is 80. While the percentage of student learning achievements in the second cycle has increased to 94% with an increase of 11% due to students already active in the learning process, students have started to want to read learning media and students are willing to cooperate in working on assignments in their groups.

According to the Ministry of Education and Culture in Trianto (210: 241) the mastery of student learning is done in a classical manner if a class has achieved a score of 85% of the number of students who complete and students who are said to complete individually if they have achieved the minimum mastery criteria (KKM) 80 set by the school.

By setting the cooperative learning type Think-Pair-Share (TPS) with comics, students will be interested in reading, active students and willing to cooperate in completing group assignments given by the teacher. Because in the type of Think-Pair-Share cooperative learning students are required to be involved in working on the students' worksheet together, students are asked to think about the answers to the questions, and then students discuss with their partners then each group will present the results of the discussion. Thus students are accustomed to being responsible and collaborating in groups so that they will be able to foster confidence in each student.

In carrying out the actions in this study, of course, there are still weaknesses that the teacher does. In cycle I the teacher is not optimal in monitoring students at the time of the pair, causing the class to become noisy and

students not serious in attending the lesson. The teacher has not been able to process time well, so when working on the LKPD, the implementation time is not in accordance with the planning of the time that is guided by the plan for implementing the learning.

While in the second cycle the learning process went well. Utilization of time has been effective when learning activities took place so that it runs according to planning.

The findings were the same with Suryanti (2012) in Indonesia that concluded that the cooperative learning model of Think-Pair-Share type could improve student economic learning achievements and Hastuti (2013) found that the cooperative learning model of the Think-Pair-Share type can improve student learning achievements. Then, the study by Hamdan (2017) from Jordan concluded the findings of the study that there were statistical differences in grades of students due to group variable at the significance level (0.05), and the differences were in favor of the experimental group and there are statistical differences due to gender at the significance level (0.05) in favor of females. Therefore, the study recommended to entry (Think – Pair – Share) strategy within the teaching strategies used by students during the teaching and the involvement of teachers in training courses on (Think – Pair – Share) strategy. The study by Raba (2017) from Palestine supported the findings that think-pair-share strategy plays a positive role in improving students' oral communicative skills, creating a cooperative learning environment and enhancing students' motivation to learn better.

From the data analysis above, it can be found that student learning achievements in cycle I and cycle II showed that the application of the Think-Pair-Share (TPS) cooperative learning model with comics could improve student learning achievements on economic subjects. The findings of this action analysis support the hypothesis proposed if applied cooperative learning with the Think-Pair-Share approach along with comics can improve student learning achievements in Economic subjects.

5. Conclusion

Based on the results of the research and discussion it can be concluded that by applying the Think-Pair-Share cooperative learning model accompanied by Media Comics can improve the economic learning achievements on the subject of economic development, economic growth, and APBN / APBD. The student learning achieved the percentage of 83% at cycle I and an increase of 94% in the second cycle.

Finally, this study recommended implementing TPS (Think – Pair – Share) cooperative learning model within the teaching strategies used by students during the teaching and the involvement of teachers in learning processes on economic subjects in high schools.

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Designing Assessment for Technical Writing and Academic Literacy: Structuring and Wording Questions using Bloom's Taxonomy: A Case Study

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Abstract

This study investigated how lecturers of Technical Writing and Academic Literacy assessed their students at a science and technology university in Botswana. The data for the study were obtained from the past test, assignment and examination papers administered to year one, year two and year three students enrolled in various programmes under the College of Sciences (including the Department of Information Communication and Technology), and the College of Engineering and Technology at the said university. In addition, a focus group of six teaching staff was interviewed to triangulate the data and to get in-depth information on how they set the assessment pieces. The data obtained from the assessment pieces were analysed qualitatively to determine the nature and the level of questions used. The data from the interview held with the teaching staff were also analysed qualitatively to determine what informed the way they set questions. The results from the study showed that the students were mainly tested for knowledge application; and many of the questions were from the low-level category as per Bloom's Taxonomy (1956) revised for the 21st Century Learners (The University of Utah's Centre for Teaching and Learning Excellence, 2001). The results also showed that lecturers did not take into account the level at which the students were studying. University students should be required to analyse, synthesise and evaluate information before them in order to demonstrate deeper understanding. It is recommended that lecturers should apply Bloom's Taxonomy when setting assessment tasks, taking into consideration the level at which the students were studying. It is hoped that the results from the study will sensitise the teaching staff at this university and other tertiary institutions on the importance of applying Bloom's Taxonomy when assessing their students.

Keywords: Assessment, Evaluation, Academic Literacy, Technical Writing, Bloom's Taxonomy, Tertiary

1.0 Introduction

Assessment is an interactive process between students and academic staff members to inform the latter on how well their students are learning what they are teaching them (Angelo and Cross, 1993; Rust et al. (2003). It

focuses on three main areas - learning, teaching, and outcomes – to provide information that will assist to improve each one of them (Rust et al., 2003). Assessment is classified as either formative or summative (Harvard Graduate School of Education's Teaching and Learning Laboratory (TLL), 2016; The University of Utah's Centre for Teaching and Learning Excellence, 2001). It is done in three stages, namely; initial assessment, mid-way assessment and terminal-stage assessment (Dawe, 2010). The initial assessment is done by assessing students before the instruction to get a baseline of pre-existing Knowledge (Gomez, 2018). This could be in the form of a quiz or a short write-up to inform the lecturer about what a student already knows Lewis, 2016). The results from this type of assessment help to inform the lecturer on what approach to use to maximize learning. The second stage assessment is the mid-way assessment, normally administered while learning is on-going. It is used to determine the effectiveness of teaching and if learning is taking place; that is, what students are learning, how they are learning and if there is need to adjust teaching. An example of a mid-way assessment is a test, a quiz or an assignment. These first two forms of assessment – initial and mid-way assessment – are categorized as formative assessment. The third category is the terminal-stage assessment used to determine the learning outcomes; it is classified as summative (Dawe, 2019). It is normally done at the end of the year or at the end of the instruction; such as at the end of a semester. A suitable example here is an examination. A final examination usually tests the entire syllabus followed for a particular course. Its results would normally indicate if learning of new knowledge took place in a course (TLL, 2016). Depending on the level of education, an examination can be used as a single indicator of learning effectiveness or ineffectiveness. A summative assessment can also indicate whether the course or programme needs to be revised or not. An examination is usually used at primary and secondary school levels as a single summative assessment. However, in a university set up, examination results and student's continuous assessment determine whether a student progresses to the next level or not. They both contribute to the final grade a student obtains. Hence this paper discusses how teachers of Technical Writing and Academic Literacy set the different types of assessment; namely, tests, assignments, and examinations.

2.0 Study Background

This study was motivated by a workshop on assessment and evaluation that the Department of Technical Writing and Academic Literacy (now Department of Academic Literacy and Social Sciences) organised for its staff members and the staff from the Library services. The purpose of the workshop was for the teaching staff of Technical Writing and Academic Literacy course (TWAL) to share their expertise on how to assess and evaluate students' performance with their colleagues from the Library. The Department found this necessary because the Library staff are involved in the teaching, assessment, and evaluation of a module on Information and Library Skills (ILS) to first-year students, which is part of the TWAL course.

The Library staff teach Information and Library Skills (ILS) module, which teaches students how to use resources in the library effectively. The module is meant to assist the students to understand what information literacy is to them as students. It involves coaching them on how to conduct research effectively using different sources of data, such as books, the world wide web, journals, to name but a few (Department of TWAL Course Guide for Year 2, 2015). The module exposes students to the university library catalogue – Online Public Access Catalogue (OPAC). It helps them to understand how it is organized, how to locate resources from databases and the library's website. The students are exposed to different types of searching strategies and web search tools, such as Boolean Operators and Periodical Indexes.

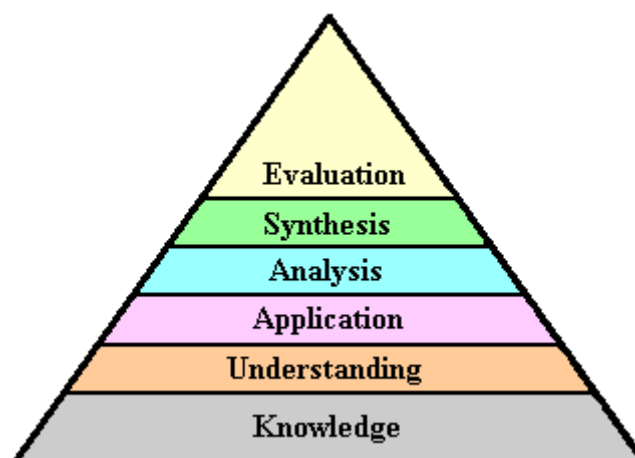
It is also in this module that students are taught about the importance of Academic Integrity. This involves ethical use of sources, copyright and intellectual property issues, how to avoid plagiarism when writing academic work. This is done by acknowledging and citing sources correctly, using the recommended referencing styles in Engineering, Science, and Information Communication Technology (ICT). The module also creates awareness among students about the types, formats, and uses of information sources. This is done by classifying information into factual vs. analytical, subjective vs. objective, current vs. historical, scholarly vs. popular and primary vs. secondary. Thereafter, the students are taught how to evaluate information sources for quality. The evaluation criteria are: currency – how recent is the information source, relevance – is the information relevant to the topic being researched, authority – is the authority of the information source credible, accuracy – how accurate is the information on the topic, and purpose – what is the use of the information being researched.

The workshop was attended by a teaching staff of TWAL and the library staff. The TWAL teaching staff are teachers by profession who have a teaching qualification in addition to their main degrees (Masters or Ph.D.). Therefore, while all TWAL teaching staff had teaching qualifications and experiences, this was not the case with the library staff. They taught the ILS module as experts but were not trained in designing and grading assessment. The workshop was, therefore, seen as a bridging gap for this deficiency. Furthermore, the workshop was also seen as a platform for the TWAL teaching staff to share among themselves their classroom experiences so as to find out whether the assessment tasks they give their students are appropriate for tertiary level teaching and learning. The workshop was also an opportunity to standardise the evaluation of students' assessment as part of quality assurance in their course. The authors of this paper presented on "Structuring and Wording of Questions Using Bloom's Taxonomy when Designing an Assessment Tool" such as a test, assignment or an examination. From the workshop, it emerged that teaching staff did not necessarily take Bloom's Taxonomy into account when setting different types of assessment pieces. Consequently, the authors decided to conduct an in-depth study on the same with the view to corroborate or refute results from their initial study.

Theoretical Framework

The study derived its theoretical framework from Bloom's Taxonomy (Ziff, 2001; Anderson & Krathwohl, 2001), named after its founder Dr. Benjamin Bloom who was an educational psychologist. The theory provides a structure that addresses students' varied needs and abilities (Ziff,2001). It was created to promote higher forms of thinking in education, such as analysing and evaluating concepts, processes, procedures, and principles, rather than just remembering facts. According to this model, both lower-functioning students and higher-functioning students can respond to different sets of questions and activities on the same topic. This is because the model has educational objectives that are structured in a hierarchical order of six levels. To simplify the hierarchy, corresponding verbs are used at each level to assist the students to understand what is expected of them (See Table 1.0 below). Level One, which is the lowest level, requires the student to know isolated information. Level Two is the level of comprehension; it requires making connections to demonstrate understanding. Level three is the application level and requires using the knowledge in a variety of ways. Level Four involves analysis of information by comparing and contrasting. Level Five deals with the synthesis of information; and students are required to develop new information. The last level (Level Six) is the highest and requires an evaluation of information by expressing personal values. This hierarchical order is reproduced diagrammatically in Figure 1 below. The corresponding verbs used at each level of Bloom's Taxonomy are also presented in Table 1.0 below.

Figure 1: Bloom's Taxonomy



Obtained from: Lewis, B. (2016)

Table 1.0 Verbs used to formulate questions at each level of Bloom's Taxonomy.

Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
Know	Discuss	Display	Compare	Develop	Infer
List	Describe	Simulate	Contrast	Construct	Conclude
Recall	Explain	Compute	Investigate	Create	Recommend
Define	Review	Demonstrate	Analyse	Role-play	Consider
Memorise	Report	Apply	Examine	Compose	Evaluate

Obtained from: Ziff, R. M. 2001.

The researchers found this theory appropriate for this paper because it addresses assessment which involves the application of one's mind rather than mere recall of facts. By assessing the assessment tasks that students were given against Bloom's Taxonomy, the researchers would find out if teaching staff took into account the students' level of study when setting assessment pieces. That is, do the type of questions they ask to differentiate between first, second or third-year students? Do the assessment pieces take into cognisance the fact that the students were studying at a tertiary institution where higher order thinking is required?

3.0 Methodology

The data for the study were the various assessments pieces previously administered to the students in both colleges from 2014 to 2017. The data were collected by selecting randomly test, assignment and examination papers. For each assessment piece, two samples were selected at each level of study in each college. The sample comprised of 12 assessment pieces for the College of Science, 12 assessment pieces for ICT and 18 assessment pieces for the College of Engineering. Thus a total of 42 assessment pieces were used in the study, and the distribution is shown below in Table 2.0:

Table 2.0: Number of Assessment pieces sampled for each college

Assessment	College of Sciences & ICT				College of Engineering and Technology		
	Year 1	Year 2	Year 1	Year 2	Year 1	Year 2	Year 3
Test	2	2	2	2	2	2	2
Assignment	2	2	2	2	2	2	2
Examination	2	2	2	2	2	2	2
Total	6	6	6	6	6	6	6
Total for each College	24				18		

In order to corroborate the results from the analysis of the questions in the assessment pieces, a questionnaire was administered to six teaching staff members (one Senior Lecturer and five Teaching Instructors) out of a total of nine. In BIUST, a Lecturer is a Ph.D. holder, and a Teaching Instructor is a holder of a Master's degree. The in-depth interview was meant to probe further what informed the way they set questions for assessment. The researchers would have liked to include all teaching staff in the study; however, this was not possible because two of them (one senior lecturer and one teaching instructor) are the researchers. The seventh Teaching Instructor was not available for an interview. Furthermore, the four Teaching Assistants were not included in the study since they are not categorised as teaching staff. The interview was also meant to find out from the interviewees the extent to which they applied Bloom's Taxonomy when setting assessment pieces.

In order to address the topic of the study, the following research questions were used:

1. Do TWAL teaching staff take into account Bloom's Taxonomy when designing an assessment?
2. Do the assessment items reflect the level of students being assessed?
3. What can be done to improve the assessment of TWAL?

4.0 Data Analysis

The data from the assessment pieces and the data obtained from the teaching staff's responses were analysed qualitatively. For the assessment pieces, the questions were analysed to determine which verbs were used in asking the question. Then the verbs were classified according to the hierarchy on Bloom's Taxonomy to determine the level of questions used. The analysed data are presented below in Table 3.0 for the COS including ICT Department and Table 4.0 for CET:

Table 3.0: Frequency of Bloom's Levels of Taxonomy (BLT) used in Assessment papers for Sciences & ICT

College of Sciences				ICT Department				
Assessment	Year 1	BLT	Year 2	BLT	Year 1	BLT	Year 2	BLT
Test	2	1,2	2	3,5	2	1,2,3	2	3,5
Assignment	2	1,2,5	2	3,5	2	1,2,3	2	1,2
Examination	2	1,2,3	2	1,2,3,5	2	1,2,3	2	1,2,5
Total	6		6		6			

Table 3.1 Summary of Bloom's Taxonomy applied in assessing Sciences and ICT students.

Bloom's Taxonomy	Frequency of use		
	Year 1	Year 2	Total
Level 1 (Knowledge recall)	6	3	9
Level 2 (Comprehension)	6	3	9
Level 3 (Application)	4	3	7
Level 4 (Analysis)	0	0	0
Level 5 (Synthesis)	1	5	6
Level 6 (Evaluation)	0	0	0

Table 4.0: Frequency of Bloom's Levels of Taxonomy used in Assessment papers for the College of Engineering and Technology

College of Engineering and Technology						
Assessment	Year 1	Levels on Bloom's	Year 2	Levels on Bloom's	Year 3	Levels on Bloom's
Test	2	1,2,3,4,6	2	2,	2	1 & 2, 5
Assignment	2	1,2,4,6	2	1 & 2	2	2 & 5
Examination	2	1,2,4,5	2	1, 2, 3,5	2	2, 5, 6,
Total	6		6		6	

Table 4.1 Summary of Bloom's Taxonomy applied in assessing the College of Engineering and Technology students

Bloom's Taxonomy	Frequency of use			
	Year 1	Year 2	Year 3	Total
Level 1 (Knowledge recall)	3	2	1	6
Level 2 (Comprehension)	3	3	3	9
Level 3 (Application)	1	1	0	2
Level 4 (Analysis)	3	0	0	3
Level 5 (Synthesis)	1	1	3	5
Level 6 (Evaluation)	2	0	1	3

In analysing the data obtained through the questionnaire administered to the teaching staff, the data were classified according to the themes of the research questions. This was to establish if the results confirm or refute results from the assessment pieces.

5.0 Results discussion

The results of the study were discussed under the three research questions; and the first one was: Do TWAL teaching staff take into account Bloom's Taxonomy when designing an assessment? The results from the analysis of the question papers show that the majority of the questions in the assessment pieces set for the College of Sciences' students, including the ICT Department are at Levels one and two (9 each), which test knowledge recall and comprehension of information respectively. This is followed by Level three (7), which tests the application of knowledge; and Level 5 (6), which tests the synthesis of information (See Table 3.1 above). According to the results, it appears the teaching staff test elementary information which does not require much application of one's mind. The assessment in the COS and ICT Department seems to be an inverted Bloom's Taxonomy. At the university level, it is expected that the majority of the assessment items should be from Level Three - knowledge application; Level Four (information analysis), Level Five (information synthesis) and Level Six (information evaluation). In Knowledge application, students should be able to use acquired knowledge to solve problems. Therefore, questions should be asked such that students will be able to apply what they have been taught to identify connections and relationships, and give meanings. For information analysis, students are expected to break down information so as to identify relationships, motivate them and derive meaning from such relationships with supported evidence. In Information synthesis, students are expected to apply their minds at the information at their disposal to build a coherent idea. Then in information evaluation, students are expected to review the information presented to them with the view to scrutinising its validity and quality (Anderson and Krathwohl, 2001). However, the results show that, in this college, none of the questions fell under the category of information analysis and information evaluation.

Concerning the College of Engineering and Technology, the results show that the questions were spread throughout all the six levels of Bloom's Taxonomy, but not according to Bloom's order. The majority of the questions (9) tested understanding of information (Level Two), followed by questions at Level One that tested knowledge recall (6). The third highest was information synthesis (5) at Level five. Next were Level four and leveled six – (3 each) and the least questions used were those that tested knowledge application (2) at Level three (See Table 4.1 above). It appears the teaching staff who taught students in CET were more aware of Bloom's Taxonomy than those teaching TWAL to COS and ICT students.

The results above show that teaching staff does not seem to pay much attention to Bloom's Taxonomy when they set questions to assess their students. For instance, in the College of Sciences and ICT Department, the questions are spread out in four levels only –information recall, comprehension, application, and synthesis. There were no questions under information analysis and evaluation. Similarly, in the College of Engineering and Technology, more questions were concentrated at Levels One and Two (15) which deal with information recall and comprehension. Then they were followed by Level 5 (Information synthesis) with five questions. The next was Levels Four and Six with three questions each. The Last level was Level Three (knowledge application) with the least number of questions (2). However, it should be noted that in the latter College, even though more questions were concentrated at Levels One and Two (15), to some extent, teaching staff seemed to be mindful of Bloom's Taxonomy in that the rest of the questions (13) were spread throughout the remaining four levels. Therefore, the least application of Bloom's Taxonomy was more apparent in the College of Sciences and ICT Department than in the College of Engineering and Technology.

Concerning the questionnaire responses from the teaching staff, the results showed that all six teaching staff said that they were aware of Bloom's Taxonomy, and they applied it. For instance, whenever they set an assessment piece, they move from the simple to the complex questions; or from the known to the unknown, following Bloom's Taxonomy. Furthermore, they all use direction words such as analyse, outline, differentiate compare, explain, elaborate, list, describe, discuss when setting questions– which reflect the level of a question's difficulty

and complexity according to Bloom's Taxonomy. They also used the direction words to reflect the intended outcome. The chosen direction words depended on the nature of the assessment item and the level of the students being assessed. However, their responses did not corroborate the information from the assessment questions. Bloom's Taxonomy was partially applied as the majority of the questions were spread between Levels One and Three.

This brings us to the second research question: Do the assessment items reflect the level of students being assessed? In response to this question, the results from analysis of the assessment pieces show that in the COS and ICT, to some extent, the teachers took into account the level of students being assessed. That is, whether they are in year One or year Two because for the former (Year One) the majority of the questions were spread between the first three levels of knowledge recall, comprehension, and application (16 out of 17). However, in Year Two, most of the questions (5) were at Level Five (information synthesis) even though nine were spread in the first three levels, with three at each level. Notwithstanding the above, one would have expected to find more questions at Level Four and Level Six for Second-year students. Unfortunately, this was not the case. Thus it can be deduced that teaching staff did not sufficiently take into account the level of study when setting assessment pieces in the COS and the ICT Department.

Concerning the CET, the results show that in year One, teaching staff took into account the level of study because there were more questions (10) in the first four levels of Bloom's Taxonomy than in the last two levels (3). This implies that teaching staff was mindful that in the first year of study, students could not handle well more complex questions that required information synthesis and evaluation. However, in the second year of study, the results show that teachers did not seem to pay much attention to the students' level of study. This is because six out of seven questions were from Level One to Level Three; only one question was at Level Five. There were no questions that could be categorised under Level Four (analysis) and Level Six (Evaluation). If they paid attention to students' level of study, there would have been more questions from Level Three to Level Six. In fact, there was only one question under Level Five (synthesis), while Levels Four and Six had no questions. Ideally, in the second year of study, there should have been more questions in the middle of Bloom's Taxonomy, and perhaps a few more questions in the latter levels of the Taxonomy (Ziff, 2001). Furthermore, in the third year of study, the results show that four out of eight questions were at Levels One and Two and another four at Levels Five and Six. There were no questions that could be categorised under Levels Three and Four. Therefore, the results show that in setting questions, the level of study of the students was not taken into account because the scenarios for years Two and Three were almost identical. Assessment items fell under the first two levels and the last two levels on Bloom's Taxonomy.

Looking at the information for both colleges, one can then deduce that in setting the assessment pieces, teachers did not fully take into account the students' level of study. Hence concentration of questions at the first three levels for COS, including the ICT Department and at the first two levels for CET. However, looking at the spread of the total number of questions under each college, it is observed that the CET had questions at all six levels while COS and ICT Department used only four levels and had no questions at Levels Four and Six. The reason for this slight difference could be that in the CET, the TWAL course is taught up to year three. In year three, students are introduced to basic research skills, and then they are given a research project, which demands analysis, synthesis, and evaluation more than what they covered in the first two years (Anderson, and Krathwohl, 2001). However, in the COS and ICT Department, the course is only taught in years One and Two.

Concerning the teachers' questionnaire responses, the results showed that five out of six teachers indicated that the assessment items reflected the level of students being assessed because:

- The assessment was based on material studied in a particular year,
- They try as much as possible to match assessment with the requirements of the university,
- The teaching was based on departmental-approved course outlines,
- Assessment addressed course objectives,
- When setting questions, they moved from the simple to the complex and from the least difficult to the more difficult - following Bloom's taxonomy, and

- They followed previous examination paper format.

The assumption here is that assessment pieces for year Two should be more difficult than those for year One (Miller and Leskes, 2005). However, from the analysis of the question papers, there was not much difference between the levels of difficulty of questions between the two years. The comments by the sixth teacher corroborated the observation made above. He differed with the other teachers and said some items in the assessment pieces did not match the year of study. Therefore, the assessment pieces did not really reflect the level of study because there was not much difference in the level of questions asked in year One and in Year Two. Notwithstanding the above, a visible difference was noted in the questions contained in the examinations for Year Three CET students which were mainly under categories Two, Five and Six on Bloom's Taxonomy. Concerning following the format of a previous examination, a setback for this one is that some previous question papers, such as the ones used in this study, did not appear to have taken Bloom's taxonomy into account. Therefore, by following them, the examiner will also be ignoring Bloom's Taxonomy.

This brings us to the third research question: What can be done to improve the assessment of TWAL? This question is answered by looking at the distribution of questions by level of study. The results showed that for both colleges, irrespective of the level of study, the majority of the questions for tests fell under Levels one and two. The explanation here could be that, for tests, students were required to recall information and to demonstrate an understanding of the information provided due to limited time normally accorded a test (50 minutes) (Kaufmann, 2011). Concerning assignments, the questions mainly tested knowledge application for the two colleges, including the ICT Department. In assignments, students were expected to apply new knowledge they had acquired (Level 3); they required more time – on the average two weeks (Newcastle, University, 2012). Such questions could be report-writing or portfolio production, and students were also free to consult various sources. However, for the CET, assignment questions also fell under Levels Four to Six; and they required analysis, synthesis, and evaluation. This shows that the level of complexity for assignment questions for CET students was higher than that for the COS and ICT students.

Concerning examination questions, the results show that for the COS and the ICT Department, there was not much difference in levels of questions asked in Year One and Year Two. For instance, in both years, questions were categorised under Levels One to Three, which required information recall, comprehension, and application. In addition, in year Two of both COS and ICT Department, some questions required information synthesis. Concerning the CET, the scenario for year One and year Two were almost similar in that examination questions was spread between Level One and Level Five. However, in Year Three, the scenario was rather different since the questions were spread between Level Two, then Five and Six. These levels show that the examinations required the students to demonstrate that they understood the information, and could synthesise and evaluate it. This according to Bloom is higher order thinking (Ziff, 2001). It can be noted from the results that there was more spread of questions throughout Bloom's Taxonomy in the examinations administered to CET students than to examinations administered to COS and ICT students. Examination questions needed to demonstrate different levels of difficulty since it is the final assessment for students (Dawe, 2019; Miller and Leskes, 2005). The logic behind this form of setting an assessment is that if all questions fell under Levels One and Two only, the examination may be considered too simple. Therefore, it would not reliably assess the students. Similarly, if an examination has questions that fall under Level five only or even level four or six, it may unfairly discriminate against students who were considered weak (Lewis, 2016). Such an assessment piece lacks validity. An examination which is a mix of all levels of Bloom's Taxonomy caters for students of all levels (Angelo and Cross, 1993). Students who may not score good marks under questions from Levels four to six may be advantaged by questions that are at Levels one to three.

It could, however, be reasoned that each type of assessment (test, assignment, and examination) had questions from Levels One and Two because the TWAL course was fairly new to the students (Department of Technical Writing and Academic Literacy, 2015). When students enter university, they only have a general English background; but in the university, they are expected to learn how to write specifically for their disciplines. Hence certain concepts may be new, and teachers need to test if students have internalised them. Furthermore, the

assessment pieces for the CET appear to be spread out throughout the six levels of Bloom's Taxonomy because, by year three, students are expected to have internalised information recall, comprehension, and application. They are, therefore, introduced to basic research – which is an entirely new course. While there may be questions which require new knowledge recall, comprehension, and application, questions should also assess analysis, synthesis, and evaluation. A major assessment such as carrying out practical research and writing its report requires knowledge application, information analysis and synthesis (for example, statistical analysis of research data), as well as evaluation of information, gathered – when discussing findings, coming up with conclusions and recommendations. Therefore, to improve the assessment of TWAL (research question three), each assessment type should clearly distinguish between each level of study. It should also take cognisance of the fact that students are of differing levels of ability; therefore an assessment piece should not unfairly discriminate against any student.

Using the teachers' responses to answer the third research question, the question was addressed at three levels. First, the strengths of the current assessment of TWAL course, second, its weaknesses, and third, what can be done to improve how TWAL courses are assessed.

The teachers indicated a number of strengths in the way the TWAL course is assessed. Some of the strengths are that there is more emphasis on knowledge application than on requiring students to recall information (Behniwaal, 2016). Assessment is based on students' capability; that is the level of study is considered when setting an assessment piece. Thus an assessment's level of difficulty or complexity is determined by what level of study the students are at. Furthermore, assessment is set in teams; for instance, teaching staff for first-year students in each college set assessment pieces together, irrespective of whether it is a test, or assignment or an examination. This practice is the same at each year of study.

As a result, all students in each year take the same assessment, irrespective of who teaches them and what programme they follow in their college. For example, in the CET, all first-year students are assessed through two tests and an assignment as their continuous assessment; all second-year students are assessed through a test, an individual assignment, and a group assignment as continuous assessment. In the third year, all students are assessed through a test, group research-based project, and individual presentations. In addition, there is one examination paper for each level of study at the end of each semester. This ensures uniformity and standardization. Because students are assessed through the same assessment pieces in each year, there is validity in the outcome of the assessment (Anderson, and Krathwohl, 2001). This style of assessment reflects the performance of students in that year in each college. Furthermore, the Department has an internal examination moderation system whereby teaching teams from the CET moderates the examination papers for the COS and ICT teams, and vice versa.

Notwithstanding the strengths articulated above, the teachers identified a number of weaknesses about the TWAL course assessment system. Some of the identified weaknesses are: In some cases, the level of difficulty of a task given to the students was not taken into consideration. This is consistent with the results of the analysis of the assessment questions, which showed that most of them were concentrated between Levels One to Three. This refutes the statements by teachers that they take Bloom's Taxonomy into account when setting assessments. Another observation was that some assessment pieces do not seem to address the objectives of the course. This reveals that in some cases, teachers set assessment independent of the course outlines they followed when teaching the course. This is more likely with tests and assignments than with examinations because examinations are moderated while tests and assignments are not. Furthermore, items in the assessment paper, such as a test or an examination, are not arranged according to the level of difficulty. This implies that questions in an assessment piece may not progress from the simple to the complex. The disadvantage with such an assessment is that it may demotivate the students if the first question may be considered to be very difficult.

The teachers also cited the lack of a central assessment bank in the Department as another weakness. If such a bank existed, it would be easier to refer to what already exists than to come up with new assessment items all the time. According to the SA study, Studying past papers is a valuable part of preparing for an assessment in that it keeps revision focused on important themes whilst practising how to answer the assessment questions.

(<http://www.thecareersportal.co.za/news/1150-benefits-of-studying-past-exam-papers.html>). Another weakness identified is the lack of consistency in setting some examination papers. For instance, although the course outlines followed by students of COS and ICT are identical, teachers observed that the examination question papers were distinctly different. There was also a marked difference between the examination papers for COS and CET students. The argument here is that if the students are following the same course, why should their assessment be different? Some teachers further observed that in some cases, students are assessed through essays, however, students who are following science, engineering and technology programmes dislike essay-writing. They do not see its immediate relevance to their studies and to what they will eventually do upon completion of their studies. One of the worrisome weaknesses was that of lack of external moderation. This is not peculiar to the TWAL course only because the University did not have an arrangement for the external moderation of its courses until recently. The teachers were of the view that while there is internal moderation of the courses in the Department, external moderation will go a long way in improving the quality of the course, including its teaching. The use of experts from other universities would enrich the courses. According to Squire (2013), external moderation of a course or programme is important because it ensures that two or more lecturers teaching the same course are assessing in a well-designed manner, are consistent and maintain a specific standard.

Having discussed the strengths and weaknesses of the assessment of the TWAL course, the teachers made a number of suggestions on what could be done to improve the assessment of the TWAL course. The first suggestion was that when setting an assessment piece, it should be ensured that questions are well-spread and cover the course outline. This will ensure that the purpose of the assessment is met. It should also be ensured that the students' level of study determines the complexity of the assessment. By so doing, there will be a clear difference between assessment for first years and second years, and between the second year and the third year (in the case of CET). One way of achieving this could be by piloting an assessment piece before it is administered, then using students' feedback to set the main assessment piece. The researchers' observation is that while this is a noble idea, its practicality is doubtful due to time constraints and lack of resources. Furthermore, to address the problem of lack of uniformity in assessing the TWAL course, the teachers suggested that the Department should agree on the assessment style, and ensure compliance to it. To ensure that everyone complies to set the standard, there should be a monitoring mechanism in place. In addition, it was suggested that external moderators should be engaged to improve the quality of assessment as well as the quality of the course and its teaching.

6.0 Study Limitations

The study's limitations are that the results are relevant to the Technical Writing and Academic Literacy Course taught at the Botswana International University of Science and Technology only. They cannot be generalised to a similar course taught elsewhere, unless a similar study is conducted. Furthermore, the results cannot apply to other courses that the students do at the same university. A similar study will have to be conducted that encompasses other courses to see if its results will confirm the results of the present study.

7.0 Conclusions and Recommendations

A number of conclusions can be made from the discussions above. First, although teachers appeared to be aware of Bloom's Taxonomy, they did not pay much attention to it when setting assessments pieces. This was more apparent in the COS and ICT Department than in the CET because, in COS and ICT, questions fell under only four categories of Bloom's Taxonomy, but in CET questions covered all the six levels of Bloom's Taxonomy even though not systematically. Further, assessment in TWAL did not take into account the level of study of the students. There is an arrangement in place for internal moderation to standardise assessment in TWAL. However, this is limited to examination papers only; tests and assignments are not moderated. Furthermore, there was no provision for external moderation of TWAL assessment until recently. Therefore, its outcome is yet to be realised.

On the foregoing, a number of recommendations are made to improve assessment in TWAL. Teachers should take into account Bloom's Taxonomy when setting an assessment item, irrespective of whether it is a test, an assignment or an examination. Secondly, the assessment piece should address the course objectives (Angelo and Cross, 1993). Thirdly, the student's level of study should be taken into account when setting assessment items (Miller and Leskes, 2002). Furthermore, the Department should agree on the style of assessment to be implemented by teaching teams to ensure standardised assessment across the two colleges, including the ICT Department (Crean and Prunty, 2011). Most importantly, the recently introduced external moderation of examination papers should become a permanent arrangement to improve the quality of the course and its assessment (Biggs, 1999).

In conclusion, the study has revealed that although the teachers were aware of Bloom's Taxonomy, they did not strictly adhere to it when setting assessment pieces. However, if Bloom's Taxonomy was taken into account, the assessment in TWAL will match the students' level of study – years One, Two and Three. Consequently, the quality of assessment will be consistent with what is expected at the university level.

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Nature Walk Program as Means of Reconnecting with the Natural Environment: An Alternative Physical Education

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Abstract

Introduction: The paper is a result of introducing environmental ecology awareness through an outdoor recreation activity as a Physical Education (PE) course dubbed as the “Nature Walk Program.” It was grounded on the principle that the need for environmental protection may not only be the work of practitioners in the pure sciences but also essentially believed to look into more avenues of the school setting particularly in the discipline of Physical Education. It is a means of putting up an alternative physical education activity utilizing the natural environment following a series of carefully planned procedures devised by the author. **Methods:** The participants of the study were college students and Physical Education teachers. Exposed to different sites that contain a wide variety of flora and fauna both endemic and introduced to the place. Using the qualitative design, it looked into the participant's awareness of nature; effects of the natural environment on perceptions based on the four areas of learning development in physical education namely: emotional, social physical and mental. **Result:** Introducing the participants to the different avian species, various endemic plants and the serenity of the study's sites, has resulted in a more profound awareness. It led to understanding the need to protect the environment, appreciation of the value of natural areas and acquiring a positive attitude for sustainable use of the environment during the practice of Physical Education. Participants were able to identify and appreciate various species of birds and some plants found in the sites of the study that may lead to further conservation. **Conclusion:** This research, found out that a nature walk program is a useful tool in the procreation of various Physical education activities using the natural environment. It may lead to an answer to the question of bringing to attention the limited inclusion and facilities in PE programs. As it is increasingly well established that the natural and constructed features of the environment affect behavior, interpersonal relationships, and actual mental states.

Keywords: Appreciation, Conservation, Recreation, Bird Watching, Nature Activities, Physical Education

Introduction

The paper is considered an attempt to introduce the relevance of the natural environment to Physical Education and also to add to the limited amount of related literature on the subject under study. One of the emphases of the presentation of the paper is the actual method and procedures held during the conduct of the activities with the hope that it would foster as a teaching method in creating nature awareness and holistic development through the performance of a Physical Education class.

The Need for Awareness of the Natural Environment

The condition of the physical environment is one of the biggest concerns of every known institution like any country on the planet from the past to the present. Man lives in a society who relies mainly on his physiological needs and in everything that surrounds him. Man utilizes the environment for his very existence and for all the developmental works which are necessary to lead a comfortable life (Husain M. 1997).

The term environment refers to all external physical factors that affect one's existence. For a man to survive, it requires a certain amount of high-quality air, water, food and shelter (Edlin and Golany 2014). Ecology was initially a technical term to describe that branch of biology which is concerned with studying the relationships between plants and animals and their environment. Ecologists often became concerned about conservation of what they investigated, and as a result, the word ecology has developed overtones which it previously never had. Today it can refer to a way of life or political persuasion based on ecological concepts (Moore N. 1987). Environmental awareness is to recognize the fragility of the environment and the importance of its protection. The fundamental need for environmental protection may not only necessarily be the work of people in the pure sciences. It is also deemed necessary to look into more avenues of the school setting. The concept of change carries with it improvement and progress (Andin C. 1978). With the present problem of global warming, land degradation, freshwater shortages, air pollution exposure to toxic chemicals, nuclear, chemical problems and the extinction of species, governments alone cannot solve the problem (Gordon and Golanty, 2014). Everyone must play a dynamic role in the concern for the environment.

Educational institutions have given rise to core programs from engineering to pure sciences and from the arts to social sciences. Husain (1997) pointed out that the goal programming approach in terms of environmental course should be imparted to the students' side by side with their primary studies. Furthermore, the structure of these proposed courses might be as simple and easy for adaptation which could enable even the common man to protect himself from the declining effect of environment and to develop the spirit of self-dependence, and protection.

Environmental awareness is one area of focus in Environmental Psychology: an area of psychology described as the discipline that is concerned with interactions and relationships between people and the environment (Mac Andrew, 1993) and how these factors affect cognition behavior (Kaplan 1987, Qoreishvandi, Mohsen and Rezayi, 2014). Geller (2002) stated in his study, (on) "The Challenge of Increasing Proenvironment Behaviour," that human behavior can protect or destroy the environmental conditions and resources that support life on Earth. It would explain the need for a radical action to change people's thoughts and attitudes towards the creation of awareness and appreciation of environmental ecology.

The New Physical Education

The need for new approaches in Physical Education was to make sure that all students experience a variety of movement forms rather than limiting the experience to traditional team sports and games (Flemming and Bunting 2007). Accordingly, the school is becoming more and more regarded as a place where people should gain experience for a better living rather than a filling station for knowledge or information. Given the changing needs of learners, an extensive variety of activities offers an opportunity to facilitate growth (Melograno, 1996). Acquaintance to various activities enhances self-testing, exploration and new interests.

Physical education has contributed to the goals of education. Bucher and Wuest (2003) mentioned that Physical Education makes a unique contribution to the development of a total person. In this manner, a quality Physical Education program enhances the health and well-being of its students, contribute to learning readiness, and physical education can be an essential part of an integrated educational curriculum. With the integration of learning experiences, it is understandable that there is an excellent emphasis on *multidiscipline with the combination of subjects* across the curriculum. It provides opportunities to students to see new relationships, to transfer what they have learned from one set to the next and to reinforce learning in various ways. Bucher and Wuest (2003) also mentioned that Physical Education offers some exciting possibilities as part of a

multidisciplinary approach to learning. According to Lambert L. (2000), a quality Physical Education program is essential in helping students achieve competence and confidence in a variety of movement forms such as sports, dance, recreational activities, and fitness activities. The nature and purpose of Physical Education, when planned and taught properly is “*education through the physical*,” its activity serves as a medium through which a total learning experience takes place. Seaton et al. (1992) stated that researchers have determined that such experiences improve not only our physical health but also enhance our emotional outlook and even stimulate our intellectual activity and ability- that is, it improves our “wellness” and consequently improve us. As physical activity can positively affect both physical and psychological well-being (Scully et al. 1999), Pretty et al. (2005) who hypothesized that there may be a synergistic benefit in adopting physical activities whilst at the same time directly exposed to nature (Hayashi et al. 1999) have called this ‘green exercise’. It is increasingly well established that the natural and constructed features of the environment affect behavior, interpersonal relationships and actual mental states (Frumkin 2001).

The Outdoor Physical Education as a Tool for Nature Conservation

The concept of outdoor Physical Education in the field of Physical Education is a recreation subject. Under this idea, recreation means “what you do to be amused or refreshed” (Bammel and Bammel, 1992). The root word *to re-create*: to create one-self anew, implying that putting oneself back together again presumably after suffering the day’s obligation. The notion of recreation in the context of Physical Education is the proliferation of an active lifestyle. As cited by Godbey (2009), outdoor recreation did not only provide an active lifestyle, but it also contributes to wellness mostly through prevention. And the most beneficial outdoor pursuits are those that become part of one’s life, done regularly. Many participants board on an occupation in a particular activity, becoming more devoted to it and adapting their participation to changing life circumstances (Bryan 1970, Stebbins 1992). Godbey (2009) also noted that outdoor physical activities often include several kinds of actions. Bird watching, for example, may consist of walking, understanding sounds and visual signs and mingling with fellow birdwatchers where each of these has its wellness implications. Walking is a shared denominator for most forms of outdoor recreation.

The concept of forest schools in Germany Switzerland and Asia to name a few have listed benefits of outdoor activities. In a study made by O’Brien and Murray (2006), on participatory action-research that discussed the impacts of a forest school on the children involved, stated that, it made impressions on children in terms of their confidence, social skills, language and communication, motivation and concentration, physical abilities, knowledge, and understanding. According to Dickson et al. (2008), the main benefits of outdoor adventure activities include interpersonal and intrapersonal skills developed through engaging in outdoor adventure activities in meaningful ways. However, benefits for the natural environment were less directly evidenced, hence the need to cultivate more nurturing individuals and communities, and increasing environmental awareness and stewardship among the people. In this manner, any effort conceivable for guaranteeing the conservation of the environment in current times and the future must be proposed and carried out as one more part in a global plan which affects all areas of human development (Varela, 2010).

Methods and Procedures

The study is a qualitative design utilizing a descriptive approach in data analysis. It intended to introduce Physical Education as a medium for environmental awareness, and a means to develop the person holistically. Dubbed as the “Nature Walk Program,” a carefully planned out method and procedures were devised by the author for the said study. Participants had nature hikes, outdoor recreation activities and bird watching during their Physical Education classes and workshops. These interventions were used to gain further information regarding the participant’s attitude towards the environment, perceptions, and understanding of the given variable.

Purposive sampling was the method for the selection of participants in the study. Students of bird watching class and other PE classes were pre-selected according to their area of specialization. With the understanding that they were neophytes in terms of exposure to the natural environment. Also, the group of Physical Education teachers

who participated in the activities of the study was not fully aware of the birds and other species that naturally dwell in the identified sites of the study.

In gathering and evaluating data, participants of the study were made aware that the researcher will be eliciting comments on how they perceive the activities and the results will be treated as research data. Participants were asked to describe their experience after performing the set activities and the factors that influenced their perception towards it. While for bird watching students, a pre-field questionnaire was asked, such as what is the reason why they enrolled in the identified PE class and what are their expectations of the course. After the intervention, the participants were asked to describe the experience in terms of identifying the factors that affected their observation on the environmental activities and were asked to rank and justify their answers based on perceptions according to the four (4) areas of learning in physical education namely: physical, emotional, social and intellectual. Participants of the study write-out their perceptions in essay forms using simple creative paragraphs.

The data was transcribed, and verbatim comments were lifted out from context. The method for analysis used is an approach that strengthens the improvement of formal processes for critical assessment and evaluation of policy-related qualitative studies; its aim is for grounding policy and practice in best evidence (Corden and Sainsbury, 2006).

Bird watching as a formal Physical Education course was introduced initially in the University of the Philippines Baguio in the summer term of the school year 2013-2014 wherein eighteen students were introduced to bird watching as a nature activity (Floresca, 2015). Since then, offering the course in the mid-semester of the school year 2014-2015 has 32 students and second semester 2015-2016 with 27 students enrollees. Bird watching was also introduced to Physical Education teachers in a seminar workshop with a total of 25 participants. As for the nature appreciation walks, it as an alternative activity in the subject *Foundation of Physical Fitness* under the topics on environmental and emotional wellness with 70 student participants.

The concept of bird watching in this particular study was subjecting the participants to a variety of physical activities namely: walking around the site while looking out for birds, mountaineering- dubbed as “scouting”- where participants together with the author was subjected to almost 35 hours of hiking around five (5) different sites. Bird watching students were provided a list of birds found in Baguio and Benguet Province which was published in the Asian Journal of Applied Sciences (AJAS) of the Online Journal Systems (OJS) by the author as their reference and guide in their activities. The participants for the bird watching class spent a total of 102 hours of outdoor activity. List of places where the study took place is presented in the figures below:



Figure 1. The Sites Where Nature Activities Took Place

Results of the Study

Nature Walk Program for Physical Education Students

Foundation of Physical Fitness is a course at the University of the Philippines Baguio that is designed to cover the role of physical education particularly physical fitness in everyday life. It is in this course that students had a chance to study different aspects of fitness and dimensions of wellness. Through this course, student-participants engaged in the *Nature walk* activity. The lessons in this particular study are PE activities that will deeply immerse the participants to nature. They walked in forest trails, and while inside the forest they practiced self-meditation. The participants also listened to the sounds heard while inside the forest. Adding on, they were asked to look for anything that would be of interest to them and find a particular species of plant that is endemic to the place and any insect that would interest them. Other activities were to look for different patterns in the tree trunks and count the number of birds they have seen while in the vicinity. The author perceived all these activities as going to deeper immersion with nature. These particular activities were just newly introduced in the subject matter of the said subject for the given semester in the University of the Philippines Baguio.



Figure 2. Physical Fitness Students' Identification of Species that could be of Interest to Them

The result of the environmental exercise as an intervention to the participant's perception of the environment made a significant change in their attitude. Participants saw emotional development as an essential aspect as they had stressful experiences as college students. Most of them reside in urban settlements such that the natural environment served as a venue for them to find solace hence creating in them relaxation and emotional satisfaction. It was also eminent that the activities performed were physically challenging due to the physical demands of walking. Social development, wherein the students had the opportunity to interact with each other while doing the activities and not merely limited within the four corners of the classroom. Lastly on the mental aspect of the study which involved identification of plants and birds, Accordingly, the exercises were beneficial to their psychological development as they were just newly exposed to the activities and whatever they have seen was something new to their intellect.

Introducing the Nature Walk Program to Physical Education Teachers

Before the teacher's introduction to the intervention, the participants were already exposed to outdoor recreation activities. The study introduced PE teachers to a different approach to Physical Education as an outdoor activity. They were taken in forests and presented in activities undertaken in large areas of the environment. This study reinforced their experiences on these activities and introduced them to a different approach in Physical Education as an outdoor activity undertaken in large areas of the environment. These PE activities include but are not limited to outdoor camping, night outdoor activities like listening to sounds made by nature (e.g., sound of critters, wind, birds, flowing water along creeks or rivers, etc.), looking at the night sky (moon and star gazing) and playing (group games) and bird watching.

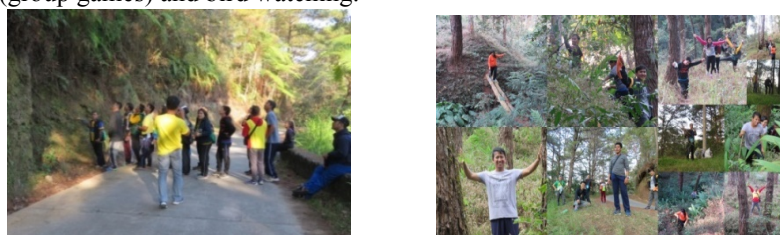


Figure 3. Exposure of Physical Education Teachers to the Natural Environment

During the daytime activity (figure 3), the participants woke up early for a morning nature walk where they were led to foray on trails under a thick canopy of trees. While on their nature walks, participants were required to spot for different species of animals, insects, plants, and birds. The participants were asked to name the species based on the list provided by the author.

Through the intervention in the study, they became aware of the different species of plants, insects, and birds found in the environment. The actions executed by the participants in the study significantly changed their perception of a Physical Education activity.

For this group of respondents, they considered emotional development to be the top indicator of the benefits they acquired during the interventions. The participants appreciated the idea that communing with nature offered them emotional relaxation and temporarily relieved them of problems and stress. The social aspect was indicated on the way they interact between their co-participants that took place during the conduct of activities. It further enhanced their acquaintanceship highlighted by the fact that they have not experienced in past PE teachers training they attended. Physical development is evident, owing to the fitness and health benefits during nature walks. Significantly, one participant claimed of improving his confidence after overcoming the challenge of crossing Log Bridge and negotiating steep climbs. The participants' indicated mental development as all activities also involved mental effort especially in memorizing the name of the species and the trails they had taken.

Bird Watching as a Physical Education Subject

Bird Watching is a course that introduces itself as a leisure activity. The objectives of the course are to contribute to better understanding of bird ecology, enhance awareness on the different species of birds found in Baguio City and the nearby municipalities of Benguet Province and provide basic techniques in identifying them. As a whole, this course infuses in every student the appreciation for the avian species.

Before the actual fielding of the student participants (Pre-field), they were asked to state the reason/s why they enrolled in the subject. The indicators for selection of reasons were Curriculum- (pertains to school policy or requirement) and self-perception, (driven by their awareness and the influence of external factors such as former classmates and social media).

Fifteen percent (15%) of the responses are curriculum related while the majority at 85% showed self-perception as the dominant reason driven by the respondents' curiosity and interest towards bird watching as a PE course. Their interest to enroll in the course was stimulated after hearing about it from past students of the subject. Other factors that motivated the students to enroll the subject are the advance information they acquired from social media and the exhibit of bird photo by the author. These factors presented what to expect from the course and stirred the interest and curiosity of the majority of the enrollees.



Figure 4. Variety of Nature Activities for Bird Watching Students

Student-participants were subjected to various environmental exercises during the whole duration of the five (5) month course of bird watching as a PE subject (PE2- Bird Watching) as shown in Figure 3. These exercises consisted of watching birds in the selected natural environments, mountain/ trail hiking or trekking, outdoor camping and nature survival activities.



Torquise Flycatcher (Resident)
(Endemic)



Scale Feathered Malkoha (Endemic)



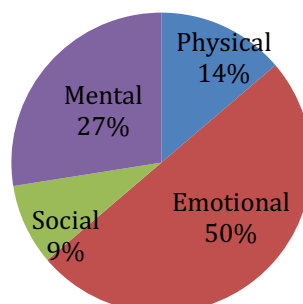
Luzon Water Redstart

Figure 5. Some of the Birds Spotted by the Students

During the interventions, participants were grouped and furnished a list of birds found in Baguio City and Benguet Province personally documented by the researcher. (Examples of these recorded birds are presented in figure 4). Out of the ninety-three (93) birds' species in the list, Group 1 spotted 56 birds representing 60% of the 93 (60%), Group 2 had 47 (51%), Group 3 had 42 (45%), Group 4 had 58 (62%), Group 5 had 56 (60%) while Group 6 had 58 (62%). The percentage or the number of birds spotted over the total amount in the list is an indication that there is an abundance of avian species found in the sites of the study. It is worth noting that the bird watching participants were able to document a substantial number of birds over a short and limited period considering that they are also preoccupied with other academic classes as full-time college students. Aside from the birds, plant species were also identified as frequent destination/ nesting place/ resting place of these birds. These plants and trees include giant fern tree, pine tree, fire tree, Alnus tree, bottle brush tree, golden shower tree, mulberry tree, aratiles tree, guava tree, coral tree, passion flower, paradise flower, pitcher plants, and thunbergia. This observation kindled a more profound appreciation for the environment by the participants.

Participants from the bird watching class stated that spotting or seeing a bird regardless of species brought a particular type of feeling of ecstasy, happiness, and fulfillment (Emotional). The other activities were admittedly equally tiresome. Nonetheless, the participants commented that they feel relaxed at night, forgot about their worries and alleviated of their sadness brought about by homesickness and anxiety of academic works. The bird watching class involved group effort hence promoting teamwork and a closer relationship between the participants. It was brought about by being together when they search for birds during their free time wherein these activities served as their "group bonding" (colloquial term for spending time together to create deeper relationship) moments (Social). The participants already anticipated the physical demands of the activities hence not a big deal to them. Accordingly, they do not mind being exposed to the physical requirements of the course, because it is part of their development. Some participants claimed that they exercised their mental ability due to the challenge of looking out for birds in the area, memorizing the names of these birds and stimulating their minds to go through the rigors of hiking and outdoor survival activities. Taking part in these activities enhanced their confidence and mental abilities.

Overall Result of the 4 Areas of Learning Development for all the Participants



Discussion of the Overall Result of the Study

Looking at the relationships of the results for the three (3) groups of respondents employing frequency count and percentage; the study found out that this environmental awareness and appreciation exercise have elicited emotional development as the highest in the percentage of responses followed by mental, physical and social in that order. Moreover, all three groups of respondents have the same order in their perception of what the interventions of the study could cultivate in terms of the four areas of learning development. The finding may have been because all three (3) groups of participants have visited the same (one to two fields) sites.

Some activities set are identical to the programme of events for the study, and the participants were already expecting (predetermined) the possible experiences during the conduct of the physical education activities. The remarks of the participants are a reliable indicator that the events involved in the performance of bird watching, mountaineering, outdoor camping and nature trekking were very successful. It was evident that through these activities, the participants' emotional and mental faculty was stimulated besides developing their physical fitness and social awareness most especially if done regularly. They have accumulated new experiences that are useful in their everyday life. Realizing self-worth, sense of belonging with a group, overcoming physical challenges and being a testament that many species especially birds will thrive as long as there is a preservation of the natural environment where the forests and trees flourish.

Conclusion

The experience of the students and Physical Education teachers to the activities introduced in the study on various outdoor and nature awareness have given them the realization of the multitude of benefits that the natural environment can offer. It was evident in the study that the four areas of learning development in Physical Education namely emotional, social, physical and mental have been fully met through the various activities performed.

The result of the study has reinforced the advocacy of physical education that students' development must be on a holistic approach (Melograno, 1996; Bucher and Wuest, 2003; Fleming and Bunting, 2007;). Specifically, in this study, the participants rated emotional development as the highest area of learning followed by social, physical and lastly mental. The result of the interventions is a manifestation that the course on environmental awareness and appreciation is an effective means of instruction that develops the learner as a total person.

Finally, the result of the study has also indicated that there is a strong motivation for the majority of participants to protect the environment as they realized the importance of the natural environment not only for their survival but also of birds and other species that thrive in it. The study has created a deeper awareness and appreciation on the part of the participants and inspired them to become advocates in the campaign on environmental awareness and protection starting in their locality.

The study's intervention has shown to be a useful tool in reconnecting the participants to the natural environment through the physical education course. It provided an alternative means in conducting a physical education course and serves as an impetus in the broader appreciation of the PE program, especially in the Philippines.

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Relationship between Art Education and Government Policy towards Sustainable Urban Development in Tehran

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Abstract

The study aims to examine the relationship between art education and government policy towards sustainable urban development in Tehran. The mixed approach of quantitative and qualitative was adopted as the study design. Stratified sampling technique coupled with simple random sampling was used to sample 300 respondent for this study. Students, as well as development partners, were targeted. Both questionnaire and interviews for literate and non-literate respondents were used respectively. Likert scale questions were used to obtain the required data for the study. The study found that there is a strong relationship between art education and sustainable urban development in Tehran and hence more collaboration is required from the government and development partners to train engineers and Urban planners based on art education.

Keywords: Art, Education, Sustainable, Urban, Development, Relationship

Introduction

Art education is an essential programme of study which provides intervention for assisting policymakers in acquiring knowledge aimed at achieving sustainable development in some of the prominent cities in the Islamic Republic of Iran. Sustainable development planners the world over recognize that sustainable development trends could be achievable and that public awareness towards Art Education is key to propelling urban societies including Tehran toward sustainable development. Aure (2010) argues that sustainable development is not automatically attainable unless prudent measures such fostering Art education are instituted in a systematic and an orderly manner.

Illeris (2010) emphasized the fact that, factors that enhanced art education are a panacea for rectifying inefficient use of art knowledge in an explicit manner towards sustainable urban development. There are very important concepts that art education espouses to inspire education for sustainable development (ESD). We use ESD most often because it is the terminology used frequently at the international level and within UN documents.

It can, therefore, be inferred from the above narrations that, people's quest for development undoubtedly provides the basis and support for leaders and change agents in sustainable development issues to apply the

principles of art education better since encompasses a whole lot of strategies. By so doing, urban development experts are able to thoroughly have an overview of art education theory for effective leadership skills.

Pedersen (2010) put forward one useful principle of art education which relate to allowing the behaviors of individuals or systems to naturally emerge so as to dominate sustainable urban development discourses, rather than trying to control them. Also, setting broad orienting values, creating the condition for the system to generate the timeliest and appropriate specific individual needs are very essential towards sustainable urban development and finally cultivates habit of experimentation and having respect for novelty; this support the emergence of small successes that can become positive and foundation to be scaled across a system.

The overall vision for Art Education towards Social Development (ESD), as formulated by the UN, considers the urban communities as centers where everyone has the opportunity to benefit from quality standard of living, and could, therefore, be described as a fertile ground for the emergence of art education capable of assisting individuals in learning the values, behavior, and lifestyles required for a sustainable urban development. To realize this ambitious vision, art education for sustainable development is built around 'the three pillars of sustainability', namely society ('people'), environment (planet) and economy (prosperity).

In spite of the powerful social institutions in society that are responsible for the coordination of the three pillars of sustainability identified above, art education which is seen as the foundation for sustainable development appears to be less appreciative and undefined concept characterized by a lack of critical thinking and approval by those with political authority. Critics of sustainable development have referred to the inability of political leaders' failure to give credence to the promotion of art education. This indeed has rendered the concept vulnerable to mediocrity and counterproductive efforts (UNESCO, 2009,). It is against this background that this study is currently being undertaken so as to examine the relationship between art education and sustainable urban development.

Objective

To establish a relationship between Art Education and government policy aimed at achieving sustainable development.

Research Question

Is there any relationship between pedagogy applied in art education and the implementation in sustainable development?

Literature Review

The literature review in this study discusses the main thematic areas such as the relationship between art education and government policy aimed towards sustainable development, the principles of sustainable urban development.

Sustainable development as the dominant paradigm in recent decades has been theorized differently across various disciplines, namely: Equilibrium-Neoclassical, Neo-Austrian-Temporal, and Ecological-Evolutionary, Evolutionary-Technological, Biophysical-Energy, Systems-Ecological, Ecological Engineering, Human Ecology, Socio-Biological, Historical-Institutional, and the like. Sustainable development as a modern approach was introduced as a solution for development that connects the economic, social and environmental dimensions of multifaceted issues as they apply on local, regional and international levels. At these levels, it is crucial that developmental plans are evaluated and examined from the point of view of all the dimensions of sustainability.

By analyzing sustainable development, planning direct intervening actions towards sustainability. It is possible for such an analysis to improve the sustainability within all economic, social and environmental dimensions. As Gonzalez and Smith (2013) stressed an indicator model to evaluate the process of sustainability with regards to

environment, energy, efficiency, and economics of the developmental plans. Falamaki, (2010) developed a practical model for measuring the progress of sustainable rural tourism in the areas and others such as Iran and proposed indicators of sustainability within individual tourism and addressed various complex aspects of the political, economic, socio-cultural, and environmental impacts on the tourism industry, and the quality of tourist experiences. Scerri and Holden (2014) also proposed a framework for assessing the Ecological Modernization Plan as the main contributor to sustainable development in ecological, economic, political and cultural areas. By using a family of tools called the Compass of Sustainability (CS), which covers aspects of the technical and process management in the development framework, defining process, assessment, and progress of sustainability, planned projects are evaluated in a consistent, comparative and comprehensive manner with respect to their ecological, economic and social impacts. International sustainability according to AtKisson (2015) has developed and named the format of the CS for its core image and framework, in which the four directional points (North, South East, and West) have been replaced by four key dimensions of sustainability: Nature, Economy, Society, and Well-being. Such a replacement is a way of representing different dimensions of and expertise in sustainability, and therefore calls for multi-stakeholder engagement AtKisson (2015). CS has the potential to predict and develop the indicators of sustainability as well as assess the performance of a specific sector of sustainability and transfer its basics to others in an easy way to understand.

Indeed, the CS aims to provide a simple method of obtaining a qualitative evaluation of the impact of important plans on the sustainable development of a given region or community and to produce a clear evaluation of the potential effects of those plans on the dimensions of sustainability. However, it should be noted that the CS does not examine the complex interaction between individual indicators. As a qualitative tool, it does not analyze complex interactions or requires comprehensive basic data. It merely processes the available information and the assessments of people using it in a clear and transparent manner. The CS is one of the recent to sustainability designed to orient strategic planning and sustainable development initiatives in the direction of systemic sustainability within a region (Hodge et al. 2015). It also reflects the status of critical elements in a system and the direction the system is heading, helps us determine how healthy the system is, and whether the trends in the system are moving in a healthy direction.

The CS also can be used to provide a general picture of the impact of a plan on its sustainable development. Folch (2015) emphasized that, by using a profile of strengths and weaknesses provided by the CS, plans can be analyzed more precisely and can be optimized specifically to emphasize the plan's strengths and reduce its weaknesses in relation to the many aspects of sustainable development. On a long-term strategic level, the CS is suitable for comparing the impact that various models have on development as it defines where you have been, and what your goals are after implementing your developmental plan's policies (Folch, 2015).

The use of the CS is recommended mainly for plans that have diverse effects on the environment, economy and society and does not make sense to use for activities or plans with a small range because the effects of such a plan on the whole system (environment, economy or society) are very limited (Holsti, 2012). National policies and development plans (which are based on the felt needs of a society's and nation's fundamental goals) play a substantial role in sustainable development and will remain on a nation's agenda and continue to play a crucial role for every nation aiming towards economic prosperity, social welfare and resource efficiency (Holsti, 2012). Policies create transparent mechanisms and tools that help policymakers to be more accountable for the success of their policies by providing the basis for reporting progress on sustainability objectives. Thus, policies become a key tool in managing sustainability.

Consequently, Bagheri and Hjorth (2014) argued that plans for sustainable development need to go beyond traditional planning and strategy making. The concept of the processes of those plans plays a key role in the definition, planning, and practice of sustainable development, and it requires a substantial shift from the prevailing practices to a transformative planning paradigm that focuses on processes, instead of on fixed goals. In the last 50 years, developmental planning has played a significant role by facilitating the improvement of a nation's situation in terms of economic prosperity, social welfare, and resource efficiency; though different nations have used various planning methodologies. For example, in Iran, massive economic, social, and structural problems and other similar issues have resulted in the development of a plan called the "Tehran

Strategic Structural Plan” to reduce the problems by presenting development strategies for the country (Redclift and Sage, 2014). In Iran, the major “Strategic Water Plan for Melbourne” (the Sustainable Water Strategy for the Central Region) was established several years ago, the “Ecological Modernization Plan” (Tehran’s Greenest City Action Plan) was proposed in order to develop sustainability for those regions. However, not much has been done to understand how these plans have gone about reaching their objectives and if they have actually been helpful in encouraging the overall activities of the society towards their favored goals. Such planning in Iran dates back almost 65 years when Iran’s first developmental plan was launched in 1948. After the Islamic Revolution in 1979, five other plans have been implemented to date. It was only after the imposed Iraq-Iran war ended that the government found a new chance to introduce the first Iranian economic, social and cultural developmental plan (IDP) (Turner, 2013). Up to now, the five IDPs have been planned and executed; the first from 1989 to 1993, the second from 1994 to 1988, the third from 1999 to 2003, the fourth from 2004 to 2009 and finally, the fifth from 2010 to 2015 which is still in progress.

The implementation of the first plan, which dealt with national development projects proceeded at a rapid pace but eventually slowed down. While the estimated average period for implementation of the first plan’s projects was seven years, in practice they lasted 10 years. In the course of the second plan, only 60 percent of annual targets were achieved, with half of the developmental projects remaining behind schedule. The third plan was different from the two previous ones in terms of both nature and quality and although income figures predicted were optimistic, practical figures proved to be different (Turner, 2013).

In further development planning, the designated policies were somewhat in harmony with sustainability that demanded new ways of collective thinking and decision making, as well as new and inclusive ways of acting to achieve and evaluate developmental improvements (Bossel, 2014). Indeed, sustainability is based on the well-known triangle of “environment-society-economy”, though, in the eyes of many, it still represents another version of ecologism. The fifth plan is still in progress and cannot yet be analyzed completely. As stressed by Bossel (2014), given such diverse implementations and impacts, the main goal of this study was to conduct a content analysis of the IDPs based on the CS theory in order to understand how the direction and conformity of Iran’s developmental plans, expressed in policies, matched the sustainable development theory as the dominant paradigm of recent decades.

Method

The objective of this study is to examine the relationship between Art Education and government policy aimed at achieving sustainable development in Tehran. Tehran is the capital of Iran and Tehran Provinces. With a population of around 8.4 million in the city and 15 million in the larger metropolitan area of greater Tehran, Tehran is the most populous city in Iran and Western Asia and has the second-largest metropolitan area in the Middle-East. It is ranked 29th in the world by the population of its metropolitan area (Naghizadeh, 2012).

The mixed approach of both quantitative and qualitative was used in this study. The City of Tehran which is made up of different communities with a number of Central Business Districts (CBDs), the researcher considers each community as a stratum, and as a result, stratified sampling technique complemented by simple random sampling, the right contacts were made with the target respondents so as to select a representative sample. Instruments of data collection such as questionnaire and interview were applied in this study.

Two main sources namely primary and secondary were utilized for data collection. The primary sources provide first-hand information from instruments such as the questionnaires and the interview. The secondary sources which deal with processed data were used particularly during the literature review. A sample size of 300 respondents was selected from students and development planners making sure that, no respondent is sampled twice. Both questionnaire and interviews for literate and non-literate respondents were used respectively. Likert scale questions were used to obtain the required data.

The researcher also ensured that the respondents were not psychologically harmed by making sure that, questions to be asked are not offensive. Confidentiality of the information was also assured by making sure that the names and addresses of respondents were not attached to the responses provided.

Results

Relationship between Art Education and Government Policy towards Sustainable Urban Development

In this section, the study concentrates on the various determinants of art education and how it leads to a practical model for measuring the progress of sustainable urban development, art education and the assessment of the ecological modernization plan towards sustainable urban development, art education and how it defines compass of sustainability which covers aspects of the technical process urban development, the status of critical elements in a system and the direction in urban development planning and art education plans for sustainable urban development to go beyond traditional planning.

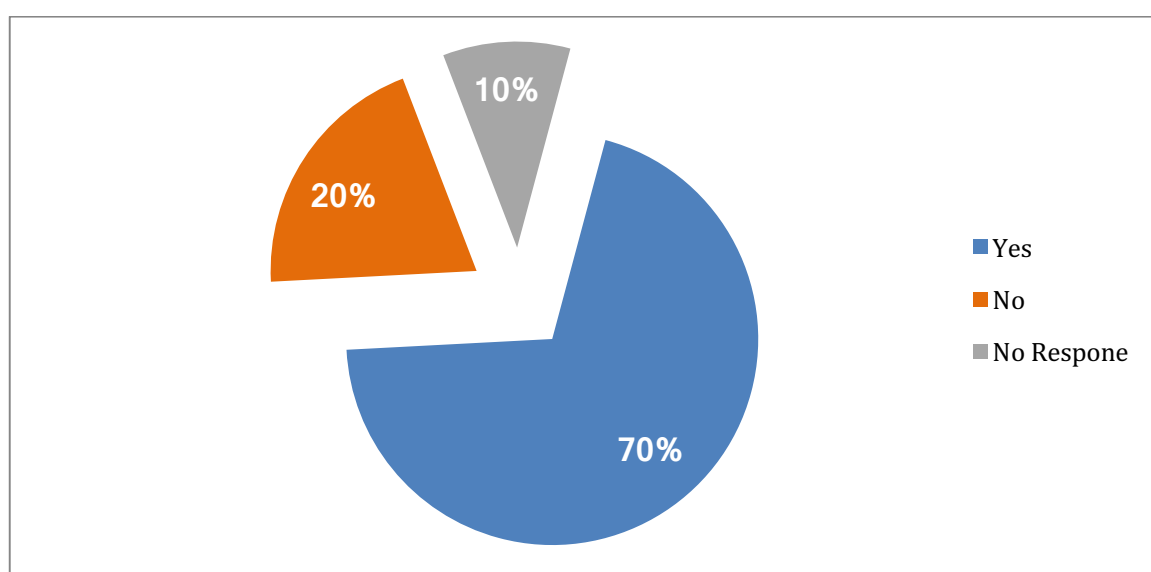


Figure 1: Relationship between Art Education and Government Policy towards Sustainable Development

Source: Author's Field Survey, 2018

Table 1: Correlation co-efficient in determining the relationship between art education and State Policy towards Sustainable Urban Development

Independent Variables	Dependent Variables										Total	
	State Policy Towards Sustainable Urban Development (Y)											
Art Education (X)	Very Related		Related		Neither Related		Unrelated		Very Unrelated		Freq (X)	Score (Y)
	freq	Score	freq	score	Freq	score	Freq	score	freq	score		
Model for measuring sustainable urban development	25	125	30	150	35	175	10	50	06	30	101	530
Assesses the ecological modernization plan	20	100	35	175	25	125	22	110	04	20	101	530
Defines compass of sustainable development	40	200	35	175	10	50	15	75	–	–	100	500
Reflects the status of critical historical	50	250	30	150	10	50	06	30	–	–	96	480

elements												
Create transparent mechanisms for policy makers	32	160	28	140	05	25	–	–	–	–	65	325

Source: field data, 2018.

Table 2: Relationship between Art Education and Government Policy Towards Sustainable Development

Responses	Frequency	Percentage (%)
Art education leads to a practical model for measuring the progress of sustainable urban development	15	15
Art education assesses the ecological modernization plan towards sustainable urban development	25	25
Art education defines compass of sustainability which covers aspects of the technical process urban development	20	20
It also reflects the status of critical elements in a system and the direction in urban development planning	10	10
Art education create transparent mechanisms that help policy makers to be more accountable on the success of urban development planning	12	12
Art education plans for urban sustainable development to go beyond traditional planning	18	18
Total	100	100

Source: Author's Field Survey, 2018

Discussion

On whether there is any relationship between art education and government policy towards sustainable development, figure 1 indicates that 70% of the respondents comprising the academia, planners, and engineers answered in the affirmative, authenticating the fact that, there is a practical, explicit and determinate relationship between art education and government policy towards sustainable urban development. Conversely, this view was opposed by 20% of the respondents who responded by expressing their skepticism on the determinate of the relationship between art education and government policy towards sustainable development. Astonishingly, 10% of the staff could not provide any response to the discussion pertaining to the determinants of variables defining the relationship between art education and government policy towards sustainable urban development. It was also of interest to note that, 10% of the respondents declined comments but I had to respond to their rights not to comment or answer the question since participation is voluntary. In the ensuing discussion, the various determinants of the relationship between art education and government policy towards sustainable development are illustrated in table 4.3 below.

The summations required for the calculation of the correlation and the regression coefficient is an extract from Table 1.

The computed regression coefficient which is represented by a value $r = 0.99$ and lies in the range of $r = -1$ to $r = +1$ in Pearson's correlation, therefore, indicate a strong relationship between art education and the state policy of sustainable urban development in the Islamic Republic of Iran.

Given the correlation value $r = 0.99$ a decision can, therefore, be made to the effect that, irrespective of the application of art education by the academia. It appears not to be sufficient enough to influence state policy towards sustainable urban development.

The strong positive relationship discovered between art education and state policy towards sustainable urban development in Iran is in line with Newman and Kenworthy (2015) argument which points to the fact that, sustainable development focus on consumerism lifestyle and the process of making decision that is only based on economic efficiency and also evaluate behavior infrastructures more than economic and environmental requirements. In fact, sustainable development as a comprehensive and innovative process needs to have a stable development.

In addition to the above, art knowledge-based cultural development of a society is part of the growing framework of sustainability and societies have the opportunity to present their stories and also complete their innovative skills and actively participate in developing culture (O' Hala, 2012).

Table 2 contains the determinants of the relationship between art education and government policy towards sustainable development. Out of the total respondents, 15% responded that art education leads to a practical model for measuring the progress of sustainable urban development. The second determinant of the relation between art education and policy on sustainable urban development is that art education assesses the ecological modernization plan towards sustainable urban development as 25% of respondents indicate. Another determinant is that 20% of the respondents revealed that art education defines the compass of sustainability which covers aspects of the technical process of urban development.

The respondents numbering 10% also mentioned that it also reflects the status of critical historical elements in a system and the direction in urban development planning. This as they further revealed requires the application of fair and transparent rules for the selection of engineers and contractors as a useful determinant of value for money in urban planning and development. The results revealed 12% of the respondents attesting to the assertion that, art education create transparent mechanisms that help policymakers to be more accountable on the success of urban development planning. In terms of art education having plans for sustainable urban development to go beyond traditional planning, 18 % of the respondents substantiated the above assertion. Such ambitious plans have enabled the city planners and engineers to ensure value for money in the execution of their planning and development projects. It thus implies that urban planning and development activities Tehran are simple and timely resulting in value for money for the achievement of the development goals.

The six determinants of art education and urban planning and development activities identified in Table 2 certainly determine value for money during procurement processes of the city authorities since they ensure that Tehran planning and development authorities procures its products or services with the lowest costs that are 'fit for purpose' and thus satisfies the requirements of government. The determinants identified above also represent a set of evaluation criteria for ensuring the most competitive pricing and cost are obtained during procurement process of service of planners, engineers and even academicians so as to ensure effective utilization of art education in urban development planning. This finds expression in Mills and Brown (2014) proposition that, the available set of evaluation criteria which determines a value for money are very relevant to the public contracts, which therefore prevent added value that gives a good reason for a higher price must flow from these defined criteria. Thus, the finding on the determinants of value for money concurs with Ostrom work.

Also, Value for Money in procurement process ensures that whichever costs are incurred is said to ensure the quality of the goods or services to meet the planning and developmental specifications. This inseparably connects again with Mills and Brown, (2014) assertion referring to the determinants as the most favorable combination of costs and quality that are fit for purpose in the procurement of goods or services works that aimed at satisfying the stipulations in procurement.

Besides, the results obtained from respondents in the administration of the questionnaire, some one-on-one interviews were made with the two deputies public entity heads (Deputy CEOs). The responses during interviews with the deputies' CEOs point to this:

To prevent fraud, waste, and corruption, or local protectionism, the government of the Islamic Republic of Iran through the various Ministries, Departments, and Agencies (MDAs), City planners and engineers' inclusive

designs policies to regulate government procurement to some extent. The policies set out laws which usually require the procuring authority to issue public tenders if the value of the procurement exceeds a certain threshold. Government procurement is also the subject of the agreement on government procurement, this then directs the City Authorities to link its budgets to procurement activities owing towards the achievement of value for money which serves as a check against unplanned procurement activities.

The responses received from the authorities also confirmed that the City planning and development unit work closely with the appropriate authorities and agencies towards achieving value for money in the procurement of good, services and works aimed at modernizing Tehran as a city that befits the status of being the capital city of the Islamic Republic of Iran. Also, the city authorities adopt measures that prevent leakages and acts of corruption by strict adherence to thresholds and linking City's budgets to procurement activities towards achieving value for money. Despite the successes, there are some challenges in the drive towards achieving value for money.

Conclusion

The study has demonstrated that there is a strong relationship between art education and sustainable urban development planning and so therefore, collaborative efforts from government and the stakeholders in sustainable urban development planning based art education are expeditiously expedited to develop appropriate needs of training of engineers and planners so as to instill in sustainable urban development planners the principles of art education from academia so that in the end, cost-effective are implemented, especially in Tehran and its adjoining communities and across the entire country are carried out. This is aimed at securing the public purse, hence the concept of value for art education be considered as a top priority to all public development planning entities across the Islamic Republic of Iran and in some countries in Middle-East with similar socio-political setting and characteristics to Tehran in particular and the Islamic Republic of Iran.

Recommendation

Since there is a general awareness of art education and its influence on sustainable urban development planning, efforts should be made by government to ensure that art education is made compulsory in all existing tertiary educational institutions and those that are yet to be established to inculcate in students the beliefs and attitudes of the citizens are firmly rooted in art education towards the achievement of sustainable urban development planning.

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Influential Mathematical Realistic Learning Approach Upon Mathematical Communication and Positive Aptitude of Junior High School of Kartini Sei Rampah

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Abstract

This study is virtually intended to comprehend influential Mathematical Realistic Learning Approach (MRL) upon mathematical communication aptitude of Junior High School RA Kartini Sei Rampah, to overview has the interactive learning approach, and Initial Mathematical Cognition (IMC) found upon mathematical communication power and positive aptitude. Typically this observation regarded as quasi-experiment. Populated Samples took place on Junior High School R.A. Kartini Sei Rampah. With 34 students of VII-3 held as the class of experiment and 34 students of VII-6 held as the class of control by purposive sampling method. Analyzed data applied ANOVA 2 trace. The proceeds: (1) There is influential approach of (MRL) found upon mathematical communication aptitude, (2) There is IMC approach found, (3) There is an interaction between learning approach and Initial Mathematics Cognition which influencing mathematical communication power, and (4) There is found not any interaction between learning approach and initial mathematics cognition in forcing positive aptitude in which learning working out with MRL approach more better than conventional learning approach.

Keywords: Initial Mathematical Cognition (IMC), Positive Aptitude, MRL approach

1. INTRODUCTION

Mathematics deemed as a complicated subject and obnoxious to most students. Woodward (2004) argues students who are vexed about mathematics complaining such things as nervous, incapable of concentrating, empty-minded, apprehended, when they are confronted with a test of mathematics. The students who are anxious against mathematics will cause an effect into their works, consequently underprivileged to retain mathematics, despite taking a long time being taught. Furthermore, the adeptness is somewhat found low particularly in the national test in Indonesia. The observation unfolded, the information inferred that students are seemingly not getting actively involved to foster brainstorm, students absorbed information passively and less-motivated in learning mathematics instead. This case led to much vexations among educators because mathematical science is playing a prominent part in elevating social economic development of a certain country.

In view of how important mathematics is, therefore mathematics is being reinforced ones of the subjects to become main concerns in each phase of education should be taken by students, despite mathematics considered is tough. Corresponding to Russefendi (in Resi, 2017) mathematics (math science) for kids generally a disliked subject. But they are required importantly to study it. This circumstance rendered a picture that mathematical cognitive considered poor, which leads to a poor sense of competition as well over math science progress itself.

Manullang & Ragagukguk (2016) declared the purpose to learn mathematics is to prepare students to deal with great scientific changes through exercises, acting by analogical thinking, rational, critical, smart, ingenious, effective.

Acep (in Mufarrihah, Kusmayadi, and Riyad) classified mathematical cognition in 5 cognitive standards as: (1) Mathematical Communication, (2) Mathematical reasoning, (3) Mathematical Problem Solving, (4) Mathematical Connection, (5) Mathematical Representation.

Mathematical communication skill is mostly necessary for learning mathematics. There are two reasons why that mathematical communication is pondered importantly in learning mathematics to have thriven among students. First, mathematics is not just an instrumental aid to think, an aid to finding out pattern, to resolve or conclude, instead mathematics is a precious instrument to communicate various ideas clearly, apt and thoroughly, Secondly, being a social activity of learning mathematics, mathematics regarded as an interaction facility among students and inter-communication between teachers and students as well.

Students who have good mathematical communication ability will comprehend the learnt mathematical concept thoroughly. Therefore, mathematical communication skill is one of the aspects which is necessarily noted in learning mathematics, and a cause of realistic mathematical learning approach over mathematical communication skill can be unveiled. Nonetheless, in fact, students' mathematical communication skill is found poor. These things are revealed on the grounds spot. One of a mathematical teacher's statement in RA Kartini Sei Rampah denoted that the students are experiencing quandaries to complete the proposed test, mostly when resolving with narration.

In other words, the lack of skill in communicating mathematical matters into symbolic language, graphic, image, or to create others conjecture is found poor that's why it is tough to present solution over submitted problems.

But beyond initial mathematical cognition and communication skill, there is a psychological aspect which is giving a contribution to the one's success to working out the tasks well. The psychological aspect is an attitude. Attitude is a tendency of one who accepts or declines a certain concept, a set of ideas, or an individual group.

Mathematics could be defined as a concept or an abstract idea in which its reasoning treated by axiomatic deductive. This means can be responded by students differently, likely to receive well or otherwise, so interaction between learning and initial mathematics cognition upon realistic mathematical approach more better rather than students; spatial adeptness which is taught through conventional approach. There is an interaction between learning approach and school rating toward students' spatial skill betterment

Hasanuddin (2010) with respect to how to develop Junior High School students' potential critical thinking through a realistic mathematical approach. Unfolded that: (1) there is a different betterment of students' potential critical thinking between those who are prevailed mathematical realistic with regular learning, (2) there is a different betterment of students' critical thinking based on school rating, (3) there is a different betterment of students' critical thinking based on gender, (4) there is no interaction between learning approach with school rating upon betterment of students' critical thinking, (5) there is no interaction between learning approach with gender toward betterment students' mathematical realistic learning.

Mauludya, Surya and Syahputra (2017) in research entitled the development of mathematical teaching material through realistic mathematical problem solving for junior high school Discovered that (1) Teaching materials are

effective relied on achievement: classical complement, TPK student learning and to respond activity. (2) Students' deftness in mathematical solving problem growing up and (3) Students' response is positive.

Zakaria and Syamaun (2017) relating to the effect of realistic mathematics education approach on students' achievement and attitudes toward mathematics. It is disclosed that there is a significant difference between MRL and Conventional approach in case of a feat. This research inferred there is no significant difference between MRL and conventional approach in respect with attitude toward mathematics. Applying the MRL approach to upgrade students' achievement but it is not on an attitude toward mathematics. MRL approach is driving students to participate in teaching and learning mathematics actively. MRL is an exact method to upgrade the teaching-learning process quality.

Others than cognitive and affective students, some observations had been taken in order to study students' positive attitude on mathematics. Saragih (2017) in concern with springing up logical thinking and positive attitude toward mathematics through Mathematical Realistic Approach. Brought to light that Mathematical Realistic Approach deserved to be considered implemented in any level of education in Indonesia in order to grow up logical thinking and students' attitude toward mathematics which ultimately can heighten student's learning outcome in mathematics.

Asante (2015) referring to secondary students' attitudes toward mathematics. Unconcealed that there is a significant difference in demonstrated attitude toward mathematics between males and females. School environment, teachers' attitude, and belief, teaching style and parental attitude identified as explaining factor which clarifying students' attitude on mathematics. Teachers and other stakeholders within the educational industry ought to arrange seminars and workshops to students, parents, teachers and institutional administrators to enhance and to promote a positive attitude toward mathematics.

Efil, Minami and Sitompul (2018) in light of the effect of concept mapping and Microsoft visio assisted cooperative learning model toward mathematical concepts understanding and emotional intelligence of Junior high school students. Divulges that (1) there is an influence of learning model (CMCL & conventional model) toward insight of mathematical concepts and students' emotional ingenuity, (2) there is no interaction between the learning model and initial Mathematical Cognition and students' emotional ingenuity, (3) comprehension of mathematical concepts and students' emotional ingenuity upon the class of experiment is better than students at conventional class.

Ones of the researches elucidated abo, and then the study assumed that initial mathematical cognition factor touching in the learning process, either by cognitive (in this case mathematical communication skill) or by affective (in this case students' positive attitude).

Alluded to some results of observations of students' initial mathematical cognition and their interaction in the mathematical learning process then researches are interested in shifting them in research. Therefore, the difference of initial mathematical cognition needs further be inspected, including, that related to mathematical communication and positive attitude toward mathematics.

2. METHODOLOGY OF RESEARCH

This study is categorized into *quasi-experiment*, Applied designed research is *pretest, posttest control group*. There are classified samples: experiment classification and control classification which proposed pretest in the form of IMC test and posttest with using the paralleled instrument. There is three types of the variable within this research: Dependent Variable, Independent Variable, and Concomitant Variable. Its independent variable is the IMC approach at the meantime its dependent variable is mathematical communication skill and positive attitude toward mathematics. The variable of control is Initial Mathematical Cognition.

2.1 Populations and Samples of Study

The population took place on whole students of Junior High School RA Kartini sub-district Sei Rampah in the academic year of 2018/2019 composed to 206 students. Technically taking samples applying *purpose sampling* from all students grade VII consisted of VII-3 as the class of experiment with treating MRL and the class of VII-6 as the class of control with a conventional learning approach.

2.2 Technical Instrument Data

The source of data acquired from the test of Initial Mathematical Cognition, the test of Mathematical Communication Skill and Inquiries of a positive attitude toward mathematics. Data analysis composed of an examination of normality, examination of homogeneity, and examination of the hypothesis. Examination of statistical hypothesis applying ANOVA formula two-ways direction. Whole statistical figures using a means of computer program SPSS 22. Syahputra (2016) said that a statistical model of the experiment is:

$$Y_{ijk} = \mu + \alpha_i + \beta_j + (\alpha\beta)_{ij} + \sum_{ijk}$$

with : i : 1, 2, 3
j : 1, 2

Explanation:

- Y_{ijk} : observation score students' mathematical communication skill ke-k, upon IMC ke-i, which getting learning approach ke-j
 μ : general average
 α_i : additive impact of IMC ke-i
 β_j : additive impact of learning approach ke-j
 $(\alpha\beta)_{ij}$: Interactive impact of IMC ke-i and learning approach ke-j
 \sum_{ijk} : Error component

3. THE RESULT OF STUDY

The result of the study shows that there is no influence MRL toward mathematical communication skill. Revealed in Table 1 the figures of ANOVA two trace as:

Table 1. Test Result of ANOVA About Learning Impact Approach Upon Students' Mathematical Communication Skill

Tests of Between-Subjects Effects

Dependent Variable: Communication Skill

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	3944.199 ^a	5	788.840	4.409	.002
Intercept	182693.084	1	182693.084	1021.067	.000
IMC	1034.110	2	517.055	2.890	.063
Approach	739.514	1	739.514	4.133	.046
IMC * Approach	2120.742	2	1060.371	5.926	.004
Error	11093.271	62	178.924		
Total	268798.000	68			
Corrected Total	15037.471	67			

a. R Squared = .262 (Adjusted R Squared = .203)

On Table 1 appeared that learning factor, obtained value F_{count} of 4.133 and significant value of 0.046. Because of significant value 0.046 less than standard significant value 0.05, then H_0 declined, and H_1 accepted. likewise, assumed that there is an influence MRL toward mathematical communication skill.

The further observation result exhibits the influence of MRL approach toward a positive attitude on mathematics. ANOVA two ways directions are visible on table 2 below:

Table 2. Test Result of ANOVA About Learning Approach Influence toward Students' Positive Attitude

Tests of Between-Subjects Effects

Dependent Variable: Positive Influence

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	1106.415 ^a	5	221.283	2.000	.091
Intercept	248209.392	1	248209.392	2243.177	.000
IMC	437.185	2	218.593	1.976	.147
Approach	571.995	1	571.995	5.169	.026
IMC * Approach	29.399	2	14.700	.133	.876
Error	6860.350	62	110.651		
Total	355028.000	68			
Corrected Total	7966.765	67			

a. R Squared = .139 (Adjusted R Squared = .069)

On table 2 show that to learning factor, obtained value F_{count} of 5.169 and significant value of 0.026. Because of significant value 0.0026 less than standard significant value 0.05, then H_0 declined, and H_1 accepted. Therefore, assumed that there is an influence of MRL approach toward a positive attitude on mathematics.

An observation about the impact of IMC toward Mathematical Communication Skill presented in Figure 1:

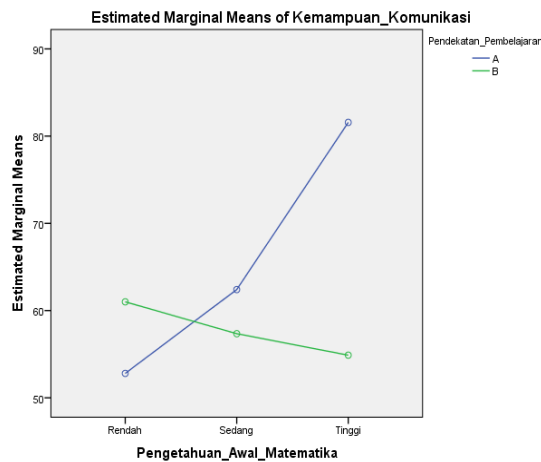


Figure 1. There is an interaction between the learning approach and IMC upon mathematical communication skill

Figure 1 above displaying how MRL approach more influential in achieving the potentiality of mathematical communication skill because of the acquired average score in the class of experiment more higher than average score acquired in conventional class. In lieu of the interaction between learning approach with IMC upon mathematical communication skill. Which means there is a simultaneous influence contributed by learning approach and IMC upon mathematical communication skill.

Meanwhile, figure 2 indicates an interaction between IMC and positive attitude its visible on figure 2 below:

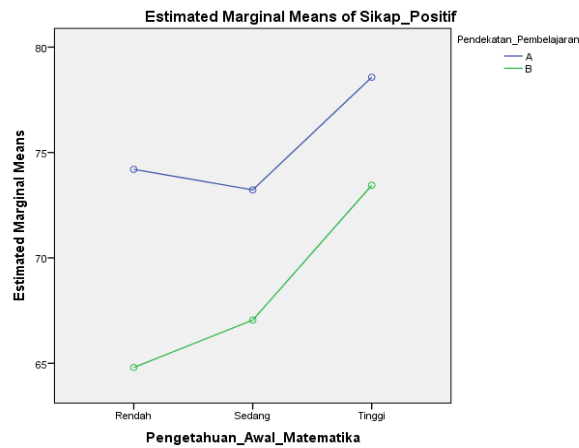


Figure 2. There is no interaction between the learning approach and IMC upon a positive attitude

Figure 2 above indicating how MRL more influential in achieving potential positive attitude at the class of experiment more higher than the average value which acquired at the conventional class. Despite interaction not found between learning approach and IMC in impacting positive attitude. Which means there is no simultaneous influence distributed by learning approach and IMC toward a positive attitude.

Students' exemplar works in the Class of experiment and at the conventional class which anchored to mathematical communication skill test of number 2 exhibited on Figure 3. The sample of test number 2 as follows:

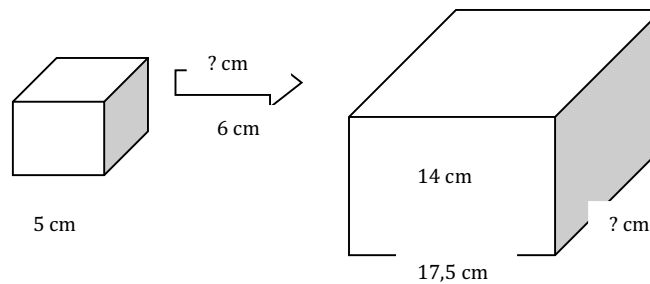


Figure 3. Box

- Write down what is known and what is asked from figure 2 above completely
- Suggest relevant questions from figure 2 above.
- Define substantial side value in unknown part.
- How come to the alteration of box 1 to box 2 and rather from box 2 to box 1. And specify substantial occurred diminution or magnification factor

The answer:

2. a) Ditubuhai
Kotak I Kotak II
 $s_1 = 5 \text{ cm}$ $s_2 = 17,5 \text{ cm}$
 $s_2 = 6 \text{ cm}$ $s_2 = x \text{ cm}$
 $s_3 = x \text{ cm}$ $s_3 = 14 \text{ cm}$

Rtany: a) Apo ditubuhai, apo ditubuhai
b) Agiatan pertanyaan yang relevan
c) Kotak I $s_3 = \dots \text{ cm}$
Kotak II $s_2 = \dots \text{ cm}$
d) Yang terjadi dari s ke 2
dan sebaliknya, kemudian
- tentukan besaran
b) Apakah kedua kotak punya hubungan

c) k I : $\frac{s}{17,5} = \frac{s_2}{14}$
 $s_2 = \frac{5 \times 14}{17,5} = \frac{70}{17,5} = 4 \text{ cm}$

k II : $\frac{s}{17,5} = \frac{6}{s_2}$
 $s_2 = \frac{6 \times 17,5}{5} = \frac{105}{5} = 21 \text{ cm}$

d) s ke 2
 $5 \times a = 17,5$
 $a = \frac{17,5}{5} = 3,5 \text{ kali}$
perbesaran ~~perbesaran~~ 3,5 kali
s ke 1
 $1 \times a = 14$
 $a = \frac{14}{4} = 3,5 \text{ kali}$
pegecilan 3,5 kali

(a) Experiment

no 2

a) Dik = kotak 1: p = 8 cm
kotak 2: p = 17,5 cm
r = 14 cm

b) Dik: tinggi kotak 1?
lebar: kotak 2?

c) gambar 1
 $L = \frac{b}{n} = 5,6$

gambar 2 $k = \frac{a}{14} = 15$

kotak 1 lebarnya 6 cm
kotak 2 tingginya 15 cm

d) kotak ke-2, 5 kali lebih
lebar dari kotak ke-1
2,5 kali lebih besar
dari kotak ke-1.

(b) Control

4. CONCLUSION

From students' answers above might be testified that the class of experiment is providing a complete solution and providing the correct answer. Mostly students at the class of experiment more better in solving a whole problem in examination than students in the conventional class. Meanwhile, in the conventional class, students' answer is found incomplete in order to make more easier solving problem, so the students are not getting the correct solution through.

In view of described observations result of the previous part, therefore can be drawn the conclusions as follows:

1. There is no influence of the MRL approach toward students' mathematical communication skill.
2. There is an influence of MRL approach toward students' positive attitude.
3. There is an interaction between the MRL approach and IMC in impacting students' mathematical communication skill.
4. There is no interaction between the learning approach and initial mathematics cognition in impacting student's positive attitude. These things can be interpreted as well that interaction between learning approach and students' IMC (poor, fair, high) making significant influence simultaneously upon mathematical communication skill and not causing significant influence simultaneously on a positive attitude.
5. Mathematical comprehensive concept power and emotional ingenuity which learning is applying MRL approach more better than conventional learning approach.

RECOMMENDATION

In light of the findings within performing research, researchers endorsing some recommendation as follows:

1. To the Teachers
 - Learning mathematics with applying MRL approach can be expanded its implementation, not just on comparative materials but also on other mathematical materials learning.

- Implementing learning with MRL approach, teachers are supposedly being able presenting various insights and matters in conjunction with materials been taught, should be made as perception to students.
 - Learning by MRL approach needs relatively more time, then within implementation, the teachers are expected to make effective time well.
2. Pertained Head of Institutions
 - Learning applying MRL approach with emphasizing mathematical communication skill and positive attitude it is quite absurd for teachers, therefore it is necessary to socialize by schools or relevant institutions in expectation to upgrade mathematical communication skill and positive attitude.
 - Learning applying MRL approach could be made as an alternative in upgrading mathematical communication skill and positive attitude into the main comparative discussion so that being able to turn it as an input into school to be fostered as an effective learning model to another main mathematics discussion
 3. Successor Head Researchers
 - To the researches needmore further to do observations concerning MRL on other main discussions
 - To the more further researches, the observations should be complemented with incorporating various factors such as attitude factor and learning interest, the economical background of the family, etc. So the researches that concerning mathematical communication skill and positive attitude simply not infected by learning approach only.

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Lesson of Inclusive Education Implementation in Jakarta: Availability and Accessibility Issues

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Abstract

Inclusive education is believed to be an innovative educational approach that can promote the educational opportunities for all children with special needs including those with disabilities. It also stresses the principle of human right, social justice and quality of education for all. The institution education has an obligation to making education available and accessible particularly for children with special needs. This article will provide an overview of availability and accessibility issues concerning inclusive education program in public school Jakarta. The study formed within qualitative research and uses a case study as strategy research for the collection and analysis of data. Semi-structured interview with the government, schools, parents, and NGO have been conducted to analyse the implementation of inclusive education in Jakarta in terms of availability and accessibility at both primary and secondary level. The result of this research revealed that there is an inadequacy in the provision of facilities and personnel to adequately prepare the children with special needs in the inclusive education program and the inequality of accessibility to basic education services between institutions. It thus called for intervention in the education sector of the region, if the goal of education for all is to be realized. There is also a discussion of recommendations and conclusions that may assist in supporting inclusive education in Jakarta.

Keywords: Inclusive Education, Availability, Innovative, Accessibility, Special needs, Disabilities

Introduction

A growing body of research on inclusive education in the past decade provides solid evidence regarding what works and what does not work in attempting to include Special Education Needs students in general education classrooms and schools (Clark et al. 1995, Lipsky and Gartner 1997, Pijl et al. 1997, Vlachou 1997, Booth and Ainscow 1998, Thomas et al. 1998, Ballard 1999). Inclusive education is a new paradigm in the discourse on the Indonesian education system. Inclusive education is a system to accommodate all the children education based on their needs and their ability (Bergsma, 2000; Crippen, 2005; Eleweke and Rodda, 2002). Previously, children with special needs were looked like a child with specific characteristics, and they needed a special approach to education based on their characteristics (Sunaryo, 2009). Tarsidi (2011) also stated that from 1950 to 2003, education in Indonesia followed a segregated system where normal and disabled children studied in separate schools. Regular school is a general school which is provided by the government for normal children. The level

of regular school provided from elementary until higher education. Meanwhile, the children who have physical or mental impairments studied in special schools, called extraordinary schools.

Following to support this program, the Ministry of Education assigned the General Directorate of Special Education to implement an inclusive education program. In 2009, the Indonesian government through the Ministry of Education issued a regulation (70/2009) about inclusive education practices. The regulation stipulates that for each municipality there should be at least have one primary school and one junior high school per district area and one secondary high school or vocational school per municipality. Regarding Tarsidi (2011), this regulation was issued by the government as a way to support access for children with disabilities and the gifted/ talented to get an adequate education in a school nearby where they lived. At the global level, contemporary educational policy privileges a managerial model of school rather than a model that emphasises the sociocultural purposes of schooling that would support inclusive communities (Goldstein 2004; Slee 2007; Tamatea 2005). There is considerable empirical evidence that children with disabilities were once seen too vulnerable to be educated in regular classrooms and many believed that they needed to be sheltered in special settings (Kavale and Forness 2000). Special interventions or placement options would be determined based on the specific diagnosis of disabilities to treat students' deficits (Vaughn et al. 2000).

In Indonesia, the operation of inclusive education is based on the following principles: 1) equality and the improvement of quality; inclusive education is a philosophy and strategy to gain equal access to educational services and improve the quality of education for all children, with respect for diversity; 2) diversity and individual differences in terms of abilities, talents, interests, and needs of the student participants; education should be pursued to meet the needs and characteristics of individual learners; 3) meaningfulness; inclusive education should create and maintain a welcoming classroom community, receive diversity, and respect the differences and independent learning of all learners; and 4) sustainability; sustainable, inclusive education should be conducted for all types of lines and levels of education. A number of issues and contradictions arise when we scrutinise rules that explicitly state a criterion for eligibility. According to the legislation education in Indonesia, the education process not only the government responsibility but also other institutions such as parents and communities. The success of inclusive education implementation could be seen from how the government and other institutions collaboration and coordination. Based on Tarsidi (2011) research about the education system in Indonesia proposed that the government and other institutions have obligations to make education available, accessible, acceptable and adaptable for all their citizens.

Tarsidi, (2011) said that "The development of inclusive education in Indonesia is indeed a bit left behind compared to the progressive implementation of inclusive education in other countries. It is seen in the limited resources, knowledge, and skills required for the successful implementation of inclusive education. The existing curricula of general education have yet to accommodate the different needs of children with disabilities fully". It gives general information about behaviour management around the school and in the classroom. Indonesian organizations and national governments have committed themselves to the inclusive development of education at least at the level of rhetoric. However, there were still many schools that had not restructured their school organizations. Sunardi et al. (2011), documented that only about 58 percent of schools reported having modified their instructional program, but most schools lacked appropriate equipment, media, or resources for SEN. It is hard to imagine modifying instruction to meet the individual needs of SEN without adequate media and resources.

Indonesians in general and educators specifically need to acknowledge that inclusive education is part of the human rights agenda that argues that all children, irrespective of their characteristics, can learn and have access to education. Availability which is a condition of being available, especially of being attainable (Merriam Webster Dictionary), is one of the ways to ensure all students have access to an appropriate and suitable education in order to reach their full potential. In education, according to UNESCO. (2005), argued that the availability in education could be meant as a social condition where people can access education easily. Currently, as a new program, the implementation of inclusive education in Jakarta still faced availability issues such as funding, teachers and facilities, and infrastructure. Rewards and incentive issues for teachers, who have

an additional task in teaching, facilities have not been adjusted for children capabilities and needs, are not accordance with the basic concept of inclusive education (Ombudsman, 2009).

Furthermore, accessibility can be viewed as the possibility of accessing the resources of some system or entity by all. It is important for all stakeholders within the school community to be aligned. Accessibility to basic educational attainment has been identified as a major indicator of human investment in the nation (Hanmer et al., 1998). As a result, Indonesia have to recently consider the vision that all schools should have the capacity to accommodate the needs of all learners in their community, by highlighting the need for good architectural designs to facilitate effective natural and artificial illumination in classrooms and buildings, modification of facilities, and redesigning the physical landscape of schools to promote accessibility and use for all children, regardless of disability. Investment in education for human nations is related significantly with economic growth and social development. Increased investment in human capital, especially in education, is essential for the achievement of the millennium development goal because education is the foundation for sustainable lifelong individual development.

In education, accessibility is often referred to some vulnerable group such as people with disabilities, gender, the minority, and internally displaced and how to get their right to access that system (UNESCO, 2005). Inclusive education is the way to accommodate vulnerable groups. In the Universal Declaration in Article III on "Universalizing Access and Promoting Equity" stated that educational disparities existed and that many different particular groups were vulnerable to discrimination and exclusion. These included girls, the poor, street and working children, rural and remote populations, ethnic minorities and other groups, and mention was made of people with disabilities. Therefore, this article will discuss the availability of inclusive education with through three factors namely: budget allocation, teacher welfare, and school facilities and infrastructures and two themes were analysed from the data as issues to make the implementation of inclusive education program in Jakarta accessible namely: no discrimination in education system and safe physical reach.

Indonesia Education System

The forms of Indonesia's education system have two dimensions, namely, track and level. Formal, non-formal and informal are three types from the track point of view. The dimensions of the level are consists of basic education, secondary education, and higher education. Basic education level constitutes a 6-year primary school, 3-year junior secondary school. The secondary level has two types of school namely: a senior secondary school which offers more academic-oriented programs and vocational secondary school is more vocational skills. Both, are directed continue to higher education, but for vocational graduates can enter to the labour markets. The detail features are presented in table 1 below.

Informal education track, there are general schools and Islamic school. The general schools are managed by the Ministry of National Education and for the Islamic school, since the curriculum put more emphasis on Islamic teaching, are managed by the Ministry of Religious Affairs. At primary level, the general one is called Sekolah Dasar (SD), while that at junior level is called Sekolah Menengah Pertama (SMP), and Islamic one is called Madrasah Tsanawiyah (MTs) and for senior school level is called Sekolah Menengah Atas (SMA) and Madrasah Aliyah (MA) for Islamic school.

Table 1: Indonesia's Education System

Level	Track	School	Age of schooling
Basic Education	Formal	1. Primary School 2. Islamic Primary School (Madrasah Ibtidaiyah)	7 – 12 years old
		1. Junior Secondary School 2. Madrasah Tsanawiyah	13 – 15 years old

	Non-Formal	Package A	7 – 12 years old
		Package B	13 – 15 years old
Secondary Education	Formal	1. Senior Secondary School 2. Vocational Secondary School 3. Madrasah Aliyah	16 – 18 years old
	Non-Formal	Package C	
Higher Education		Universities/ Institute 1. Non-Degree Program (Diploma I –IV) 2. Degree Program (Bachelor, Master, and Doctorate) 3. Professionals program equals to master and Doctorate	19 – 29 years old

In the higher education level, Indonesia has two tracks namely university and institute. The differences in the name on the program which they are offers. The university offers different disciplines, such as economics, law, science, art, agriculture, etc. Meanwhile, the institute only offers one type of disciplines such as technology or education. Each discipline has branched out into different specialities. For example, education may be branched out into technology education, sports education, art, and language education. It also occurs in technology as a discipline, and it may be branched out into processing technology, information technology. Both of that higher education level are offer degree and non-degree program. The degree program started from Strata 1 which is equal with Bachelor, strata II equal with Master degree and Strata III equal with Doctorate. The non-degree program is range from diploma I until diploma IV. The detail forms are presented in table 1 above.

In addition, Indonesia's education system recognizes non-formal education as a means of ensuring education provisions for citizens. This track is especially to eradicate literacy as well as to provide education children for children due to geographic isolation, and social exclusion are left out from education provision. Package A, B, and C are the non-formal programs which have to make a significant distribution to achieve the target of the compulsory of 9-year basic education.

Particularly, for disabled children, the government provided special schools based on the type of impairments. The special schools (SLB) are divided into some groups namely: SLB A is for children with visual impairment; SLB B is for children with hearing impairment, SLB C for children with developmental impairment, SLB D for children with physical impairment, SLB E for children with social and emotional disorder and SLB G for children with multiple impairments.

The Challenge for Teachers in Inclusive Education?

The use of term inclusive education has become widespread. UNESCO (2005) described inclusive education as an educational process where all the learners will learn together based on their diversity of needs and reducing exclusion in education. It involves changes, modifications in content, approaches, structures, and strategies, with a common vision which covers all children of the appropriate age range and conviction.

Stainback and Stainback (1990) defined that an inclusive school is a place where all students are learning together with their peer in the same class. This school provides decent education programs, challenges, but execute based on the abilities and needs of students, and support by the teachers to make them succeed in the learning process. Therefore, inclusive education not only focused on children with special needs but also to all children who have a problem in learning. That is true that one of learning barrier was influenced by disabilities, but there was another factor such as emotional and environmental factors. On the other hand, inclusive is not a fixed concept, and it is the result of social construction which depends on the context and needs understanding based on the topic discussed (Florian, 2006). Additionally, in inclusive education, the challenge for teachers is the quality of learning and participation of all the pupils located therein. Inclusive schools are understood to be those that make major adjustments to their organisation and processes in response to their diverse populations. A key element of adjustment is in the way that teachers teach: to develop inclusive pedagogy teachers need access to good information.

Previous systematic literature reviews related to the area of SEN and inclusion had focused on behavioural concerns and behaviour management in schools (Harden et al. 2003); the impact of paid adult support on the participation and learning of pupils in mainstream schools, including pupils with SEN (Dyson, et al. 2003); and school-level approaches to facilitating the participation by all students in the cultures, curricula and communities of schools (Nind, 2006). Although research had sought to establish the effectiveness of particular pedagogies or the impact of school actions on pupil participation, there had been no prior systematic review that could answer the question of what pedagogical approaches can effectively include children with SEN in mainstream classrooms. In this regards, also there is considerable evidence that teachers attempt to differentiate their teaching according to perceptions of broad pupil ability. Martin and Hayes, (1998) reported that general and specific ability were among the enduring characteristics which teachers perceived as important when planning to teach. Similarly, Clark et. al (1995), exploring teachers' 'craft knowledge' in relation to the teaching of 11-12 year-olds, found that response to pupils perceived as being of low ability included emphasising oral explanations, providing multiple examples, using pictorial stimuli and, for pupils with writing difficulties, providing highly structured written tasks. These strategies cannot be taken as necessarily representing either a common or a SEN-specific pedagogy. The starting point for this review is to take the pedagogic justification for such differentiation as problematic and uncertain (Brahm and Anne, 2013).

Inclusion can be seen as a process to respond to the diversity among all individuals through participation in studying, culture and society and diminished exclusion in education services (Booth, 1996; Florian, 2006). However, a growing number of psychologists and educators believe that culturally biased tests are a factor in unwarranted special education placements. For example, in his review of Renato et al., (2009), links the practices of an earlier period with the continuing salience of race. Families of children with disabilities are insisting on the placement of their children in general education classrooms, with the necessary supplementary aids and support services. Thus, the discourse in special and general education about who is to be educated and about how they are to be educated provides an opportunity to examine these relationships in society at large. But interestingly, inclusion today is about the children who are not in school, children in school whose needs are not being met, the teachers in the schools, the legal system, the social culture, and the education system itself (Watkins, 2009), and the policy fails to recognize the differences between pupils with special needs (Turner, 2003).

With regard to the place where disabled children received their education, Cigman (2007) opines that there are two different opinions. The first opinion is the opinion of the Universalist who is advocated for systemic change related to universal inclusion. The Universalist argues that mainstream schools should welcome and adapt themselves to all children without exception. The second opinion comes that from the moderate who generally agrees with the Universalist, but with the caveat that this must be subject to the school's capability in terms of school resources. Based on these two opinions, it is important to ensure that every school can provide the right amount of education. But, it is established that the culture of each school is dependent on the attitudes of staff and their professional ideologies (Handy and Aitkin, 1986). As a result, Carrington, (1999), in their observational analysis of pupils, found that all teachers involved were more concerned with controlling pupil behaviour than ensuring pupils were working effectively.

Turning to the benefits of inclusive education, inclusive education can help disabled children avoid the negative labelling of a special school. Some researchers believed that children in a special school might feel humiliated (Margalit, 1997). Margalit defines humiliation as 'any behaviour of condition that constitutes a sound reason for a person to consider his or her self-respect injured' (p.2). This opinion is in line with the statements of the Centre for Studies in Inclusive Education (CSIE) as stated below:

"The discrimination inherent in segregated schooling offends the human dignity of the child... Segregated schooling appeases the human tendency to negative label and isolates those perceived as different. It gives legal reinforcement and consolidation to a deeply embedded, self-fulfilling, social process of de-valuing and distancing others on the basis of appearance and ability in order to consolidate a sense of normality and status" (Education, undated).

Inclusive Education in Jakarta

The policy of including pupils with special educational needs (SEN) in mainstream schools and classrooms in Indonesia becomes complex issues. The legal basis for the implementation of inclusive education in Jakarta was strengthened by the issuance of governor regulation no. 116/ 2007 regarding the implementation of inclusive education. Chapter III article 4 of this regulation stated that at least 3 primary schools and one junior high school should have existed in every sub-district together with one senior high school in every district. Nowadays, there are 161 schools implementing inclusive education in Jakarta (Regional Education office of Jakarta data, 2009). It consists of three pre-schools, one hundred and twenty primary schools, thirty-one for junior level and ten schools for secondary level. The number of these inclusive schools is not compatible with the governor regulation no. 116/ 2007. Jakarta has five regions and one district with forty-four sub-districts. Thus, based on that regulation the amount of inclusive school at the primary level should be one hundred and thirty-two, at the junior level, forty-four schools and at the secondary level is fifteen schools (Fuadi, 2013). Table 5.1 showed the number of Inclusive school by the district in Jakarta.

Table 5.1: Number of Inclusive School by District in Jakarta, 2010

Education Level (Year)	North Jakarta	East Jakarta	Centre Jakarta	West Jakarta	South Jakarta	Total
Primary (1 – 6)	15	41	20	19	25	120
Secondary (7 – 9)	6	8	5	6	6	31
High (10 – 12)	2	2	2	2	2	10

Based on the table above, see that primary school which conducted inclusive education is more than secondary and high school namely if 75% (120 schools) of 161 inclusive school in Jakarta. The school distributed evenly in that entire district. The amount of school in secondary and high school is not as much as primary school. There are many reasons related to this condition. First, the government is concerned with nine years compulsory education program which stated that all Indonesian people is required to go to school for nine years in the basic level of education; six years in primary school and three years in secondary school. It will give a significant impact on the implementation of inclusive education. Second, inclusive education is a new education program in Indonesia that means the education institutions still looking for a better concept to implement this program.

The research result of inclusive education assessment in Jakarta by Ombudsman (2009) also founded that there are some components in the implementation process that are not in accordance with the basic concept of inclusive education, such as: 1) curriculum that the school used is not adapted to the needs of children, 2) supporting teacher or shadow teacher is not provided in every inclusive school, 3) facilities have not been adjusted for children capabilities and needs, 4) admissions process through the online system is not relevant to the needs of student.

The governor of Jakarta realised the importance of democracy and equality access in education for all learners with any condition, and this is also in line with the demands of human values particularly related with the human right to obtain a quality education (Sunaryo, 2009). Based on the governor regulation above, the aim of inclusive education implementation in Jakarta are: a) to increase the understanding of human diversity in democratic society, b) to give an appropriate education based on human right, c) to make education accessible for all children with special needs. This regulation also means that all the public school which has been assigned as an inclusive school by the government have to accept children with special needs to learn together with their peers (Brahm & Anne, 2013).

Methodology

The researcher, in the present study, to address the research objectives and research questions adopts a qualitative approach. The qualitative research has a various and different meaning. Qualitative research can be viewed as a solution integrated with a set of practice and arranged clearly to solve the problems in real situations (Denzin & Lincoln, 1994). According to Patton (2002), qualitative research is a research that produced and processed descriptive data, such as; interview transcripts, field notes, pictures, and video recording. In qualitative research, the researcher pressed on the relationship with people who involved in this study. The purpose of this act is to get a better understanding of real life. (Taylor, & Bogdan, 1998) stated in qualitative approach researcher will know the subject (person) personally and analyse them how they develop their own definitions of various things., Through a qualitative method is expected to emerge the actuality, reality, and subject perception without formal measurements as described in Mason (2002).

Research Strategy

This research will use the case study as strategy research. Robson (2002, p.178) defines a case study as 'a strategy for doing research which involves some empirical investigations of a particular contemporary phenomenon within its real-life context using multiple sources of evidence.' Therefore, this strategy can be used to achieve a better perceptive of the research context and existing processes (Mason, 2002). The case study will bring us to the understanding of a complex issue or object in real life. As like as Patton (2002) defined that case study is 'a design employed to gain an in-depth understanding of the situation and meaning for those involved. The interest is in the process rather than outcomes, in context rather than a specific variable, in discovery rather than confirmation. She concluded, 'the single most defining characteristic of case study research lies in delimiting the object of study of the case' (p.27).

In this research, I will use the case study as my research strategy. Because this research focussed on inclusive education program and used multiple sources that included individuals and institution particularly in education. The aim of this research is analysing the implementation of inclusive education in Jakarta with institutionalized poverty challenges. Inclusive education is a National Education Program which focussed on children with learning disabilities. This child is studying in a regular school together with their peers.

Data Collection

The data collection for this study was conducted for 4 months in Jakarta. Jakarta as the main city in Indonesia is composed of 5 districts, namely; centre, east, west, north, and south of Jakarta. Each of districts has some inclusive school from primary school, secondary school until high school. In this research, I will choose the school based on two criteria; school location and the level of education. Each of the districts will be represented by five schools as follow; three primary school (including school model), one secondary school and one high school.

Participants

Participants in this study were non-probability sampling selected. Purposive sampling is a form of non-probability sampling. Denzin and Lincoln stated that 'many qualitative researchers employ...purposive and not random, sampling methods. They seek out groups, settings, and individuals where the processes being studied are most likely to occur (1994, p.202).

The participants in this study are coming from educational institutions which consist of government, school, and communities (parent and NGO). Two people were represented from Directorate of Special Education and Special Education Services in the Ministry of National Education. They served as a head of curriculum areas for special education unit and as a head of assessment and accreditation education program for special education

unit. In the regional level, the head of the special education unit in Education Office Jakarta is becoming my participant in this research.

In the inclusive school, the participant consists of principals and teacher. The teacher who participated in this study is a class teacher and supporting teacher or shadow teacher. They consistently worked closely with the inclusive education program. From the communities, this research interviews the parents who have children with special needs in inclusive school and also parents who have normal children and one Non-Government Organisation (NGO) that one of their programs is developed the inclusive school in Indonesia. This organisation is Helen Keller Indonesia (HKI) which has sponsored from the Helen Keller Foundation in the United States. HKI and the Indonesian Government collaborated in inclusive education program since the year 2000 until now.

Results and Discussions

This study explored inclusive education for children with special needs in Jakarta related to availability and accessibility issues. The findings are described as follow;

Availability Issues

In educational institutions, availability can be defined as a social condition where people can access education easily because education is a human right (UNESCO, 1990). Education for all (EFA) is a declaration of the United Nations that has the goal that all children without exception can get access to school and be educated at least through the primary level. There are three themes that emerge in this situation, namely: budget allocation, teacher welfare and facilities, and infrastructures.

Budget Allocation

One of the considerations in the implementation of inclusive education is a concern with the availability of financing and supporting resources (Lynch, 2001). As one of the government program in the education sector, inclusive education needs additional funding where it will blow the education budget and increase the unit of cost provision. It is common sense that those children with special needs will require additional resources because they need more educational equipment's to support the learning process. McLaughlin & Warren (1994) determine that inclusion is expensive to implement at the first stage, but it should become cost-effective over time. This is also supported by (Peter et al., 1999) who stated that inclusive education is a golden opportunity to reduce the cost of special education services which is more expensive than regular education.

Relating to the cost of inclusive education program, the Indonesian government issued a policy that the government will provide funding for school which implemented inclusive education. This situation explained by a participant that:

"Resources funding for schools to implement inclusive education can get this from the Department of Education in Jakarta or General Directorate of Special Education." (Gov3)

However, this participant also gives an additional explanation that government funding will stop when the school stop continuing this program:

"When they are stopping that program, no will be more fund for them in the next term." (Gov3).

Regarding some participant from schools about the funding from the government, they used the funding to:

The grant was used to conduct a workshop in 2009 for the teacher, student's representative and also people who lived near that school as participants. The aim of this workshop is to introduce an inclusive education program" (ScH1)

"we used the funding from the government to buy learning materials for some types of a student with special needs in this school." (ScP1).

Some schools not only got funding from the government but also from another source such as non-government organization, communities, and universities.

"... this school has cooperated with Paramadina University since 2008, and always participated in any workshop conducted by region office and other universities, such as Jakarta State University (UNJ)". (ScP2)

"... this school has cooperated with HKI to provide free glasses for those who have a problem with far sight last year". (ScJ1)

According to the condition of the inclusive education program in Jakarta, we can see that the government in the national and regional level supported the implementation of that program. Support is provided through allocated funding for inclusive schools. The school can also get funding from other institutions such as non-government organization, communities or other parties which concerned with the inclusive education program.

Teacher Welfare

The researcher found that teacher welfare in the implementation of inclusive education in Jakarta particularly become very fundamental issues. Teacher welfare has become a key point of education availability. The teacher has to receive competitive salaries, enjoy better working conditions, have access to teaching materials and get an offered join in training programs to improve their teaching abilities and increase their involvement in the learning process (Skipper, 2006).

Additionally, this research has shown that educators play as an important role to make the inclusion program run smoothly, yet, there are problems related to managing inclusion class. Therefore, the government has to provide some training or workshop as a way to achieve teacher competence in the learning process. As stated by Riggs and Mueller (2001) that intensive and systematic training, given by competent and experienced trainer, is suitable for the inclusive teacher. The research found that an international NGO has collaborated with the Indonesian government to conduct a basic understanding of inclusive teaching. As stated by the participant from secondary school,

"our teacher in this school received training of trainers' program which is held by HKI and also some workshops conducted by State University of Jakarta." (ScH2)

The other issues that have been found are the lack of support personnel to help teachers. Support teacher together with the class teacher to make a lesson plan, review lessons and share ideas in teaching children with special needs in mainstream class. From 27 schools which become sample in this research, there are 18 inclusive schools don't have support teacher. The main constraint faced by either at schools or in the Regional Education Office is associated with supporting teacher status.

"The status of supporting teacher is still not admitted as a permanent teacher, there is a time when the Department of Education in Jakarta comes to our school to register all teachers, but in the register form, there is none for the supporting teacher, then my status always as a subject teacher who is not fit for us." (SupT1)

"When I have to fill in the occupation form from the Department of Education in Jakarta, I can't find my status as a supporting teacher in one of the choices. (SupT2)

This condition will impact the incentives and awards that they should receive as a non-permanent employee in schools. As stated by participants from primary school:

We paid supporting teacher salary with this funding, but we did not mention them specifically, because there is no item for supporting teacher cost in that proposal and they are not allowed to do that." (ScP2)

With regards to the description above, the issue of supporting teacher status in Jakarta is still a problem in Indonesia, particularly in Jakarta. This problem will have an impact on their income and their future career. We can see that support teachers are an important part making this program successful because the function of supporting the teacher is helping the class teacher in making lesson planning and evaluation (Hanmer, 1998). This issue remains unresolved by the government. The reason is that there is no regulation to accommodate the status of supporting teachers in the school structure and the budget of education items.

Facilities and Infrastructures

Since 2000, the implementation of inclusive education in Jakarta faced facilities and supporting infrastructure issues. Most the public schools in Indonesia, particularly in Jakarta have standard structure building for a regular student.

"The problems that we are still facing even now are the standard of the building structure. In general, the building structure in public schools is built like a standard building for the normal student; none of the public schools are built for the purpose of disabled children. Example of building structure issues

include: there is no toilet for disabled children in all schools, and also no lift for a student with wheelchairs." (Gov2)

Nevertheless, regarding the Department of Education in Jakarta, there is a school that had the initiative to modify the stairs to give access to their student with a wheelchair.

"We have a student with cerebral palsy. The government gave us a wheelchair to support it. And we also modify our school stairs so that student can have access to go to the upper floor." (ScJ2)

Pivik et al., (2002) stated that resources are the main causes of the schools' unreadiness to conduct inclusive education in some countries. It is not easy to change the school systems from regular school to inclusive school without any suitable facilities that support the teaching and learning process. Besides, school creativity to fulfil the implementation of inclusive education needs a school capacity (Hanmer, 1998).

Regarding school facilities, such as learning materials and other supporting equipment, government or NGO which concerned with this program help schools to provide it.

"We have a student with visual impairments, and then the government provides us with some Braille books." (ScJ3)

"...that the fund obtained from the General Directorate of PSLB is used to buy Braille Letters". (ScJ4)

"... this school has cooperated with HKI to provide free glasses for those who have a problem with far sight last year". (ScJ1)

"... there is a special English exam for the blind and the deaf from the region officer." (ScH2)

This problem is not only faced by Indonesia but also with other countries. There is some research about the issues of school facilities of inclusive schools which still became a major problem in some countries (Porter, 2001; Skipper, 2006). Therefore, the coordination among education institutions which is related to this program is that it is important to develop inclusive education programs in a better way that is appropriate for all the students.

Accessibility Issues

Accessibility can be viewed as the possibility to all individuals to access resources of some system or entity. Accessibility to basic educational attainment has been identified as a major indicator of human investment in the nation (Harden et al., 2003). Two themes were analysed from the data as issues to make the implementation of an inclusive education program in Jakarta accessible. First, no discrimination in the education system which means the government as a decision maker should provide legislation that supports all vulnerable children to access education easily, and for schools to provide quality education services for all the children without exception. The next theme is about safe physical reach. This means that besides the school location which has to be close in their area regardless of their strengths, weakness, and disability (Booth, 1996).

No Discrimination in Education System

Inclusive education emphasizes on giving access to education for those who have special educational needs. The main factor based on the access to inclusive school is the requirement system from schools to accept children with special needs. This research founded that requirement process for students with special needs in primary school is conducted in two stages. First is administration selection and then, interview with parent and student. In the first stage, students have to provide some documents such as a medical report from professionals (psychologist) who state that they have the ability to learn in regular school along with other supporting documents.

"In 2010 the registration process in inclusive school for the parent who had a child with special needs have to apply a week before recruitment of regular student. The new student should bring a recommendation letter from their psychologist and the result of an IQ test and also other documents such as birth certificate and family identity card." (ScJ2)

The statement above is also agreed with by another participant from primary school who added:

"In this school, we have 35 children with special needs including students with learning difficulties. 15 of them enrolled through the special registration process, and the rest of them were found after the learning process passed" (ScP4)

The recommendation letter from a psychologist is compulsory for children with special needs if they want to enrol into regular school, as stated by a supporting teacher from Primary School:

"There is no special criterion for children with special needs to enrol in this school. As long as they have the recommendation letter from their psychologist which mentions that this child can study together with other normal children in regular school, then this school will accept them. We also conducted IQ tests collaborated with a special clinic or psychologist for students who indicated a need for special education."(ScP5)

Meanwhile, the inclusion idea appeared in most nations which are related to education and individual rights particularly for children with a special need to be educated in mainstream schools (Peters 2004). This means that the education systems have to support children with special needs to enter the regular school without any condition because they also have the same rights that other children have to be educated.

Safe Physical Reach

The friendly environment and access to the school is a pre-requirement process to implement in inclusive education in regular schools.

"Ideally, children should go to schools that are nearby. Therefore, we appointed schools evenly in each district in Jakarta." (Gov3)

The problem is that faced by the government relating to the distance of school issues has come from that school itself. In most developing countries, the issues of limited inclusive school arise as a lack of government policy to make inclusive education accessible for all children (Clark et al. 1995). This means that for children with special needs who live far away from inclusive school will not be able to get a chance to study in inclusive schools or they should spend additional costs to reach that school.

"We had a blind student last year, but he has now moved to another school which is closer to his house. Fortunately, this year the government has appointed some senior high schools as an inclusive school but not as much as primary schools." (ScH2)

There are some schools, although appointed by the government to implement inclusive education; nevertheless, they refused to conduct that program. They argued that they are still not yet ready with the supporting facilities to implement that program. This is also expressed by the participant from the government sector:

" , before The Ministry Regulation no. 70, 2009 issue about inclusive education which stated that in each district they have at least one primary school and one junior high school and at least 1 senior high school or vocational school in each municipality, we have already appointed some schools in any level for each district in Jakarta to be an inclusive school. But, most of them still rejected this because they felt they were not ready to implement it yet. That is why the number of inclusive school in Jakarta still insufficient."(Gov3)

But after that, through the Ministerial Regulation number 70/ 2009 about the implementation of inclusive education, there are no more arguments from schools to conduct that program. The regulation stated clearly that the government would appoint some school to implement inclusive education. The result of this regulation based on the data in 2009 and 2010 about the total amount of inclusive education is increasing from 54 inclusive schools in Jakarta to 161 schools. These views were also expressed by one of a parent from Primary School

"Before 2009, I have a problem in finding an inclusive school for my child. But now, I heard from my friend that there are many inclusive schools in Jakarta and I am really glad to hear that."(Pa2)

However, the goal is to make the implementation of inclusive education in Jakarta a success. This encourages all institutions to strive for better than success.

Conclusions and Recommendations

Overall the implementation of inclusive education in Jakarta is still not run optimally. From the availability point of view, seemingly the budget allocation system by the government needed a review. Teachers need service training to improve their competence to manage the learning process particularly for children with special needs. Supporting teachers required clarity from the government regarding their status in schools. Currently, some schools put supporting teacher status as teacher class in order to give incentives and rewards. The inabilities of schools to provide and to accommodate adequate infrastructure and facilities for a student with special needs such as toilet for disabling or access stairs for a wheelchair, however, coordination and collaboration between school, parents, and communities may be needed.

Regarding the accessibility issues, it can be concluded that educational institution which in this case consists of: government, schools, and communities still need more efforts to make education accessible for all the children including children with special needs. The result of this research, confirm that: the implementation of inclusive education in Jakarta concentrated on providing opportunities for disabled children to attend regular schools while ignoring other issues such as ethnicity, victims of natural disasters, victims of social conflict, and other minorities. If Indonesia particularly Jakarta is to implement inclusive education meaningfully, institutions in education system need to revise their value system, restructure their organization and requirement procedures to overcome an obstacle to learning and participation for the full range of children in Indonesia.

Inclusive education is a new discourse in Indonesia education system and is treated as an additional program in the education sector which only be handled by a small number of personnel. If the government and other educational institutions very concern with this program and had a good infrastructure (i.e. better funded, better controlled and supported by law), positive results might occur for all learners. As a next step, the government should develop and support the formation of non-profit organisations, incorporating professionals, parents, and academicians as a main place source for information provision and in controlling the implementation of inclusive education in schools.

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Optimism, Career Decision Self-Efficacy and Career Indecision Among Greek Adolescents

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Abstract

The study explored the mediating role of career decision making self-efficacy between optimism and adolescents' career indecision. Using a sample of 153 Greek high school students, it was found that optimism influenced career indecision both directly and indirectly (via career decision making self-efficacy). The findings are discussed with reference to the social cognitive career theory (SCCT) framework. Implications for research and adolescents' career counseling are also discussed.

Keywords: Adolescents, Career Decision Making Self-Efficacy, Career Indecision, Optimism, SCCT.

INTRODUCTION

Making a career choice appears to be the result of the successful completion of a number of developmental tasks (Gati, Krauz, Osipow, 1996). A carefully planned career decision invariably leads to important future vocational outcomes. For that reason, how individuals approach the career decision-making process is of vital interest to career counselors in order to help their clients deal better with the challenge of making career decisions more effectively. Students gradually become more focused on making career choices during their secondary education. At that age, students have to decide upon a suitable university study or an adequate job to engage in, and their career decisions will strongly direct their future career paths. Greece provides a particular set of educational and social conditions, under which high school students' career development is formed. Contrary to other student populations, who are supposed to make career choices during early adulthood, Greek students are expected to make critical occupational decisions during secondary school years. Current situation of economic crisis in Greece and the high unemployment rate among 19-29-year-olds (Neets), make that career decision

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making is becoming an increasingly difficult and stressful task and career indecision one of the most important issues in Career Counseling (Lent, Brown & Hackett, 1994).

Career Indecision

Career indecision usually refers to difficulties faced by the individual in his attempt to make career decisions. These difficulties are identified either before or during the career decision making process. (Gati & Levin, 2014). Numerous publications over the past two or three decades have pointed that career indecision is considered as a dichotomy (i.e., clients were categorized as either equipped to make viable career decisions or not equipped to do so). Over time, the belief grew that clients could be plotted on a one-dimensional continuum anchored by 'undecided' and 'decided.' This view was in turn replaced by the belief that career indecision should be seen as a multi-dimensional phenomenon (Argyropoulou & Kaliris, 2018). Several studies have focused on various aspects of career indecision, such as cognitive, emotional, and personality-related aspects, and researchers have developed taxonomies and appropriate diagnostic instruments in order to map these difficulties (Gati et al., 2011). Therefore, researchers in career counseling devised assessment instruments to determine the nature of clients' indecision and began to design different interventions for different subcategories of indecision (Gati & Willner, 2013).

The study of factors related to and influence career indecision can help the career counselor identify about the type of career indecision of the person (career indecision – career indecisiveness) decide about terms and of the appropriate intervention program. Cognitive Career Theory (SCCT: Lent, Brown & Hackett, 1994. 2002) has emerged as a valid and frequently used framework for understanding academic and career choice in recent years (Betz, 2008; Lent et al., 2008). A recent trend focuses on extending the SCCT framework from career choice formation to career decision making process and its outcomes/attainments, such as level of career decidedness/indecision. Therefore, SCCT could serve as a helpful theoretical tool for understanding career indecision.

SCCT and Career Decision Self-Efficacy

Social Cognitive Career Theory draws its roots from Bandura's social cognitive theory, which emphasizes the importance of examining the ways in which self-referential thinking, cognitive patterns, and various social processes interact to guide and influence human behavior (Bandura, 1986; Lent et al., 1994). The initial theorists of SCCT, Lent et al. (1994), adapted the elements of Bandura's social cognitive theory that were most relevant to career development processes in order to examine the influence and interaction between experiential learning processes and cognitive processes on career decisions. Three central constructs have been identified by SCCT due to their relevance within career development processes: self-efficacy, outcome expectations, and goals (Lent, Brown, & Hackett, 2002). Self-efficacy is defined as a self-evaluation of one's abilities to complete a certain task or attain a certain level of achievement or performance (Bandura, 1986). Self-efficacy belief might improve or weaken in different ways. For instance, students who have never experienced career decision making will most probably have lower self-efficacy belief in career decision making.

According to Lent et al. (2002), self-efficacy is a core component of SCCT theory, because people are theorized as more likely to develop an interest in activity, choose to pursue that activity, and ultimately perform better at the activity if they possess robust self-efficacy beliefs (assuming the individual also possesses requisite abilities and receives support from their environment) (Wu, 2018). In the development process, career decision self-efficacy refers to the individual's belief that he or she can successfully complete tasks necessary for career decision making (Taylor & Betz, 1983). Taylor and Betz (1983) developed the Career Decisionmaking Self-efficacy scale to measure this construct and showed that it was associated with career indecision. Empirical findings so far confirm the SCCT's hypothesis concerning the ability of self-efficacy to affect the career decision-making process. For example, the construct has been related to career indecision (Giannakos, 2001), career exploration (Rogers, Creed & Glendon, 2008) and vocational identity among Greek adolescents (Koumoundourou, Kounenou & Siavara, 2011). According to Scott and Cianni (2008), research on career decision self-efficacy adds to our understanding of the nature of career decision making and enhances

knowledge of many constructs relevant to the study of career development. Within Greek context, a number of factors (personality, environmental factors, and contextual supports) have been bound to affect the career decision-making self-efficacy of high school students as well as their performance in relation to the career decision-making process (Charokopaki, 2012). In this conceptualization, career decision-making self-efficacy is viewed as a causal antecedent to making a career decision, that is, a causal antecedent to being career decided or undecided. As a consequence, research has focused on the career decision-making process. More specifically, a number of researchers have explored the mediating role of career decision making self-efficacy between person inputs, such as personality traits or affective predispositions (e.g., big-five personality traits, emotional stability, core self-evaluations outcome expectation (Jin et al., 2009. Koumoundourou et al., 2011). Rogers, Creed, and Glendon (2008) also insist on the mediating role of self-efficacy belief among personality characteristics as one of the person input factors and career behaviors. These studies show that person inputs might affect career development process not only indirectly, as it is proposed by SCCT theory, but also directly. More recently, researchers also point out that as far as empirical evidence is concerned, limited attention has been given to person input variables (Sheu & Bordon, 2017). Taking into consideration that most studies within SCCT framework have explored the role of personality and other alternative personality constructs, it could be interesting to cross-validate the effect of affective predispositions and positive emotions such as optimism on career development. Given that career optimism, attitudes will likely influence one's expectations for engaging in future actions, it appears appropriate to include within-person input variables in SCCT models. This supports the need to examine career optimism specifically, rather than dispositional optimism, when applying an SCCT framework.

Positive Emotions-Optimism

Current research trend in Positive Psychology focuses on effective predispositions and positive emotions concern the scientific study of the human merits and the internal powers of character which strengthen individuals and help societies to prosper. These are important perennial values, psychosocial powers, skills and emotions such as courage, optimism, perseverance, hope, vocational adaptability, endurance, joy, altruism, etc. (Frederickson et al., 2004. Pury et al., 2014). This tendency gave, naturally, a lift within Greek context, in the research level for the study of the relationship and the effect of various positive emotions and variables to important subjects of career development such as the career decision making (Argyropoulou & Kaliris, 2018. Argyropoulou, Katsioulas, Drosos, & Kaliris, 2018. Charokopaki & Kaliris, 2018. Sovet, Annovazzi, Ginevra, Kaliris, & Lodi, 2018).

One newly identified construct that has garnered recent attention in the career development literature is career optimism. Dispositional optimism refers to generalized expectations regarding positive future occurrences (Scheier & Carver, 1985). Optimistic individuals are better able to maintain positive expectations about succeeding in the present and in the future. Optimists are also less likely to dwell on negativity, more likely to persist when facing adversity, and more likely to utilize positive coping behaviors (Peterson & Seligman, 1984). Within the context of career development processes of college students, dispositional optimism has been established as positively related to engagement in career planning actions such as career exploration and the development of one's vocational identity (Creed et al., 2002). Optimists do not expect the problems to be solved, but they take the appropriate means. They are also able to deal with threatening situations because they adopt active coping strategies, focusing on solving rather than avoiding the problem (Tsechelidou, 2015). On the contrary, pessimists have low decision-making abilities, they express negative perceptions about their career behavior, and they have an external control about decision-making process (Gati, Landman, Davidovitch, Asulin-Peretz, Gadassi, 2010).

Within the SCCT framework, in other surveys, there has been a positive correlation between optimism and support from parents or teachers to self-decision making self-efficacy (Garcia, Restubog, Bordia, Bordia & Roxas 2015. Rottinghaus, Buelow, Matyja, & Schneider, 2012). Optimism directly predicts academic satisfaction and provides for a proper career choice (Milvee et al. (2013). Braunstein-Bercovitz Benjamin, Asor, & Lev (2012) found that stress (as a general characteristic and professional) and pessimism (personal-professional) have a high correlation with career indecision. Finally, a positive effect was directly and indirectly, through person cognitive

variables (e.g., self-efficacy), predictive of academic satisfaction among college students and job satisfaction among adults in some European and African countries (Lent et al. 2009.2014). These studies appear to extend the SCCT hypotheses including positive emotions to person inputs and by showing that these personal inputs might affect career development process (including career decision making process) not only indirectly, as it is proposed by theory, but also directly. Therefore, taking into consideration that studies mentioned above have used other constructs but positive emotions or optimism, in order to explore the role of person inputs in the context of SCCT, it could be interesting to cross-validate the effect of dispositional optimism beliefs on the career decision-making process. More specifically, we expect dispositional optimism beliefs as person inputs to affect indirectly career outcomes/attainments, such as level of career decidedness/indecision via career decision making self-efficacy and also directly.

Methodology of Research

The data collection took place from January to February 2018. The present study is responding to calls for further examination of both the personal influences on adolescents' career development process (Rogers et al., 2008) especially calls to explore how other personality trait-like variables such as optimism may function as person input variables in SCCT model and the applicability of SCCT framework to different cultural settings (Sheu & Bordon, 2017). Also, given the specific educational characteristics of career decisions for Greek students, it seems highly important to understand the affective predispositions under which Greek adolescents cope with their demanding career development process. Since SCCT has been shown to be valid theoretical framework for understanding the factors influencing career decision-making self-efficacy (e.g., Charokopaki, 2012), it was considered worth testing whether the potential extension concerning the influence of optimism on career decision making self-efficacy and career indecision applies in Greek adolescents.

Putting the previously mentioned findings and calls and SCCT framework we decided to examine the mediating role of career decision making self-efficacy between personal inputs and level of career indecision by introducing a new construct, optimism. In other words, we decided to examine the role of optimism as a person input variable and its direct or indirect, through person-cognitive variables (career decision making self-efficacy), predictive role in career decision state in Greek adolescents. Therefore, the following hypothesis was generated: optimism is expected to influence young adolescents' level of career decision making self-efficacy, which, in turn, influences their career indecision state (see Figure 1).

Specifically, although positive emotions and their effect on career development variables such as career decision making has recently been acknowledged, previous research efforts on extending SCCT to career choice process have not examined optimism as a person input variable and whether the identified patterns of relationship among constructs apply within the SCCT framework.

Therefore, the main research questions of the survey were as follows:

- a) Is there a significant relationship between optimism (predictor/independent variable) and level of career indecision? (outcome/dependent variable)
- b) Is there a significant relationship between optimism (predictor/independent variable) and career decision making self-efficacy? (mediator variable)
- c) Is there a significant relationship between career decision making self-efficacy (mediator variable) and level of career indecision (outcome/dependent variable) with the predictor controlled
- d) Does the strength of the relationship between optimism (predictor/independent variable) and career indecision (outcome/dependent variable) is significantly reduced when career decision making self-efficacy (mediator) is added to the model?
- e) Does parameter coefficient (standardized beta) weigh is reduced, when both the independent variable/predictor (optimism) and the mediator (career decision making self-efficacy) are related to outcome variable (career indecision) (path c') than standardized beta indicating the relation between the independent variable /predictor (optimism) and outcome/dependent variable (career indecision)?

Sample

The sample of the present survey consisted of 153 Greek high school students (71 boys and 82 girls) from various senior high schools (Greek Lyceum) located in the capital of Greece, Athens. The age of students ranged from 16-17 years. 92 of the students (60%) of the students were attending the first year of Lyceum, and 61 (39, 9%) were attending the second year of Lyceum.

Instruments

The following questionnaires were used to collect data.

Career decision making self-efficacy. The adjusted Greek form of the Middle School Self-Efficacy Scale (Fouad, Smith & Enochs, 1997) was used to indicate the level of participants in career decision making self-efficacy. The Middle School Self-Efficacy Scale is a modified version of Taylor and Betz's (1983) CDSE Scale. Modifications included having fewer items and more understandable wording for children in middle school. This 12-item scale measures adolescents' confidence in the ability to make career-related decisions. A sample item includes "I resist attempts of parents and friends to push me into a career I believe is beyond my abilities or not for me." Responses are recorded using a Likert-type scale ranging from strongly disagree (1) to strongly agree (4). Mean scores are derived, with higher scores indicating more confidence inability to make decisions about a future career. In a validity study of the CDSE measure with middle school students, Fouad and Smith (1997) found this modified scale was valid and reliable with this group. Middle School Self-Efficacy Scale was translated in Greek by Charokopaki (2012) and has been shown to be related to various career variables, such as career-related parent and peers support when used with Greek high school students (Charopaki, 2012). Sample items include "Find information in the library about five occupations I am interested in"; "Make a plan of my educational goals for the next three years"; "Decide what I value most in an occupation." In this research, the internal consistency (Cronbach's α) of CDMSE was 70.

Career indecision. Career indecision was assessed by the adjusted Greek form of Career Decision Scale (Argyropoulou, Sidiropoulou-Dimakakou & Besevegis, 2007. Osipow, 1987), which is consisted of 18 items. The CDS has been primarily used as a measure of the degree of indecision, but it was originally developed with the expressed intent of identifying types of indecision. Items 3 through 18 represent the 16 items measuring indecision (e.g., "Several careers have equal appeal to me. I'm having a difficult time deciding among them"; "I can't make a career choice right now because I don't know what my abilities are"), and items 1 and 2 indicate certainty of career choice (e.g., "I have decided on a career and feel comfortable with it. I also know how to go about implementing my choice"). Responses are recorded on a 4-point Likert response continuum of *Like Me* (4) to *Not Like Me* (1). The internal consistency reliability of CDS has been consistently high with r 's in the .80s (Fuqua & Hartman, 1983). In the study of Shimizu et al. (1988) the Tucker-Lewis reliability coefficient for the full scale was .992. In this research, the internal consistency (Cronbach's α) of CDS was 80.

Life Orientation. Life Orientation Test-Revised (LOT-R. Scheier et al., 1994. Greek adaptation, Tsechelidou 2017) was used to explore dispositional optimism beliefs. Life Orientation measures dispositional optimism by a 10-item scale, with 4 filler items and 6 scale items. LOT-R Total scores are calculated by adding the 3 positively worded and 3 negatively worded items (these are reverse coded). Respondents are asked of the items on a 4-point scale (from strongly agree to disagree strongly). This gives a possible score range of 6 to 24, with higher scores indicating a higher level of optimism. Tsechelidou reports an internal reliability coefficient of .82. Cronbach's alpha calculation on the sample of the study is .67. Sample items include "In uncertain times, I usually expect the best," "If something can go wrong for me, it will" (items reverse scored). Scheier and Carver (1985) considered optimism to be a unidimensional construct, putting optimism and pessimism as polar opposites, suggesting that an individual can be optimistic or pessimistic but cannot be both. The choice of this instrument was due to the lack of to fit the Greek context. Moreover, LOT-R of career maturity, career decision making, and well-being in a study which involved 504 high school students (Creed et al., 2002), showing Cronbach's $\alpha = .60$.

Demographics Questionnaire. An improvised questionnaire for the collection of demographic data was created, which included questions about gender, age and school year attended.

Procedure

Participants were asked to participate voluntarily after school timetable curricula, in research aiming to examine the factors affecting the procedure under which they make their career decisions. No name identification number was required thereby maintaining anonymity. Researchers informed the participants about confidentiality issues and that they had the right to withdraw from the study administration at any time and any stage. The questionnaire booklet took approximately 20 min to complete.

Data Analysis

Each questionnaire was screened by the first author in order to guarantee that no missing data occurred. As a result, there were only a few missing data which were substituted by the mean score of the item (Graham, 2009). Descriptive statistics (mean and standard deviation) and internal consistency estimates (Cronbach's α) for the scores of the students at the scales and the sub-scales of the survey were calculated.

Results of Research

Psychometric Characteristics of the Scales

Table 1. Cronbach's α indices of the subscales used in the survey

	Cronbach's α	Number of items
Optimism	.60	10
Career Decision Making Self-Efficacy	.70	12
Career Indecision	.80	18

For the needs of the analyses, the average answers of the participants were calculated in the factors in which the scales of career decision making self-efficacy career indecision and optimism are compounded. The possible width of the values for all scales was from 1 to 4. Table 2 shows descriptive statistical indices for all scales. According to these results, it could be surmised that the participants showed moderate scores for career indecision. This suggests participants displayed a moderate level of career indecision. Participants also showed approximately high scores for career decision making self-efficacy scores. This suggests high ability regarding the efficient confrontation of career decision-making issues. Finally, participants showed a low level of dispositional optimism. This suggests a low feeling regarding positive future occurrences. The means and standard deviations, for all measures, are reported in Table 2.

The Mediating Role of Career Decision Making Self-Efficacy

To examine whether career decision-making self-efficacy accounted for the relationship between optimism and career indecision, the date analytic strategy (mediation analyses) developed by Baron & Kenny (1986) was followed. Within this strategy, a series of analyses test (four steps) are performed that test four conditions of causal relationships through multiple regression analyses. Specifically, according to Baron and Kenny (1986), there is evidence that a variable mediates the relationship between a predictor variable and outcome variable when each of the following conditions have been met: a) there is a significant relationship between predictor (i.e. optimism) and an outcome (i.e. career indecision), b) there is a significant relationship between a predictor and a proposed mediator variable (i.e. career decision self-efficacy), c) there is a significant relationship between a proposed mediator and outcome (with the predictor controlled), d) the strength of the relationship between a predictor and an outcome is significantly reduced when the mediator is added to model, and e) parameter coefficient (standardized beta) weigh is less when both the independent variable/ predictor (optimism) and the mediator (i.e., career decision making self-efficacy) are related to outcome variable (i.e., career indecision)

(path c') than the one (standardized beta) indicating the relation between the independent variable /predictor (i.e. optimism) and outcome/dependent variable (i.e. career indecision).

James, Mulaik & Brett (2006) proposed that complete mediation is supported when not only Parameter coefficient (standardized beta) in path c' is not only less than the one in path c but is also of significant importance. However, since in social sciences relationships are multidimensional, which means they are the effect of many factors, such a demand is strict enough and not possible to happen (Judd & Kenny, 1981). For this reason, when the Parameter coefficient (standardized beta) weigh in path c' is less than the one in path c , then partial mediations happen. Mediation analyses can be performed with either multiple regression, or structural equation modeling (SEM), or with Mediation, Moderation and Conditional Process Analyses (Process macro for SPSS or SAS) written by Andrew Hayes (2013).

Process analyses were conducted (see Table 3). Our study was an explanatory one, therefore we used an α level of .05 for all statistical tests. Career decision-making self-efficacy (i.e., the proposed mediator) was regressed to optimism to establish Path a (see Figure 1B) in the mediational chain. We found that two variables were significantly positive related ($R^2 = .04, p < .05$) and that optimism predicts career decision making self-efficacy ($b = .27, t = 2.70, p < .05$). Career indecision was regressed on both the independent variable (optimism) and the mediator (career decision making self-efficacy) to test whether the mediator is related to the outcome (Path b in Figure 1B) and to estimate the relation between the predictor and the outcome controlling for the mediator (see Path c' in Figure 1B). We found that career decision making self-efficacy is negatively related to career indecision ($b = -.51, t = -2.91, p < .05$). When career indecision was regressed on both optimism and career decision making self-efficacy, added a significant 11% of the variance of career indecision above and beyond optimism. The addition of career decision making self-efficacy reduced the standardized beta weigh for optimism (from $-.51$ to $-.32$). This indicated the partial mediating role for career decision making self-efficacy beliefs between optimism and career indecision. Finally, career indecision (i.e., the outcome) was regressed on the independent variable (optimism) to establish that there is a total effect to mediate (see Path c in Figure 1A) when the mediator is removed. We found that two variables were significantly negatively correlated ($R^2 = -.07, p < .05$) and that optimism predicts career indecision ($b = -.5927, t = -3.472, p < .05$). Optimism explains 7% of the variance of career indecision. The difference between standardized beta in path c and ($b = -.51$) and standardized beta in path c' ($b = -.59$) ($c' < c$) indicates that there was a mediational effect. Specifically, confidence intervals of bootstrapping technique between the lower (BootLLCI) and upper (BootULCI) didn't include 0 ($-.2134$ to $-.0047$) which means mediational effect was significant ($b = -.09, P < .05$).

IX. Discussion

The study sought to extend the SCCT framework by examining the mediating role of career decision making self-efficacy between personal inputs and career indecision state in a new educational and cultural setting (namely, Greece). It also sought to cross-validate and extend previous research on personal inputs in the career domain and the mediating role of self-efficacy in decision making by introducing positive emotions, in particular, dispositional optimism.

The results indicated that there is a significant relationship between optimism and career decision making self-efficacy. Adolescents who tend to have high optimism and therefore are more resilient to difficulties, have confidence in themselves and deal with obstacles, appear to be more efficacious of making career decisions. The specific result is in line with SCCT and research findings positing personality characteristics affect the formation of self-efficacy beliefs (Jin et al., 2009. Koumoundourou et al. 2011. Rogers et al. 2009. Wang et al. 2006), and is also in line with SCCT research findings positing positive predispositions such as resilience affect self-efficacy beliefs (Charokopaki & Kaliris, 2018. Garcia, Restubog, Bordia, Bordia & Roxas 2015. Rottinghaus, Buelow, Matyja, & Schneider 2012). The result is also in line with research studies positing that positive effect was directly and indirectly, through person cognitive variables (e.g., self-efficacy), predictive of different types of satisfaction among students and adults (Lent et al. 2009.2014).

The relationship between optimism and career indecision were also confirmed. Adolescents with a low degree of optimism which, therefore, don't face problems as manageable and controlled, they don't adopt coping strategies and have a higher level of career indecision. The specific result is in line with research findings positing a negative relationship between positive emotions (hope, courage, optimism) and difficulties in career decision making process in adolescents (Argyropoulou, Katsioulas, Drosos, & Kaliris, 2018. Tsechelidou, 2015. Kaliris, Sidiropoulou, Dimakakou, Argyropoulou, Drosos, & Fountouka, 2017. Shin & Kelly, 2015) and findings positing that young adults with positive psychological capital (i.e., resilience) adapt strategies for dealing with career decision-making tasks (McMahon, 2007). The result is also in line with findings positing that optimistic students feel they have made a proper career choice (Milveenetal. 2013) and that pessimists have low decision-making abilities, external control about decision making process (Gati, Landman, Davidovitch, Asulin-Peretz, Gadass, 2010) and high level of career indecision (Braunstein-Bercovitz Benjamin, Asor, & Lev (2012).

Concerning the mediating role of career decision making self-efficacy between optimism and career indecision, the results provide full support. More specifically, consistent with other previous research including personality traits or positive predispositions (resilience) as personal inputs in adolescents (Charokopaki & Kaliris, 2018. Jin et al., 2009. Garcia, Restubog, Bordia, Bordia & Roxas 2015. Koumoundourou et al. 2011. Rogers et al. 2008. Rottinghaus, Buelow, Matyja, & Schneider, 2012. Wang et al. 2006), optimism, as a positive personality trait, appears to exhibit a direct and indirect effect on career indecision via career decision making self-efficacy. It seems that the extension of SCCT concerning the effect of personality traits, especially positive personality traits and positive psychological capital as personal inputs proposed by previously mentioned researchers and also international researchers (Sheu & Bordon, 2017), is confirmed (applies to Greek sample of adolescents). Dispositional optimism may function as a personal input variable in SCCT models.

X. Limitations

It is necessary to note some research limitations. First, data were from the capital of Greece excluding more rural and suburban areas. Therefore, the results need to be cautiously applied elsewhere. Additionally, as evident to most other studies of this area, the findings are based only on self-report data. This limits the validity of correlations found due to the methodologically shared variance that was not intended to be measured.

XI. Counseling Implications

The results from this study provide some first empirical evidence concerning the applicability of the SCCT extended model on the factors influencing Greek adolescents' career indecision. Based on the specific findings, career decision making self-efficacy remains the core construct, toward which counseling interventions should be addressed. Counselors might use self-efficacy enhancing procedures (i.e., mastery experiences, vicarious learning, social persuasion and emotions regulations techniques) in order to facilitate students' vocational self-awareness. Self-efficacious students in career decision making are more confident in future orientation, demonstrate flexibility to uncertain situations (Aspinwall et al., 2001) and develop strategies for coping with career indecision (Lipshits-Braziler, Gati & Tatar, 2015). Additionally, self-efficacious students in career decision making are more confident in future orientation, demonstrate flexibility to uncertain situations (Aspinwall et al., 2001) and develop strategies for coping with career indecision (Lipshits-Braziler, Gati & Tatar, 2015).

The results of our study could make a contribution to intervention in vocational and educational guidance. As also shown by this research, assessing students' level of optimism could add to the counselor's understanding of the individual mechanisms employed in both career decision self-efficacy and career indecision formation. Dispositional optimism could contribute to career planning constructs like career decisiveness (Magnano, Paolillo & Giacomini, 2015). A positive education enhances optimism in career planning and thinking about one's career choices and reduces ineffective decision-making. The results of this study also could be used by career counselors and advisors in developing programs aimed at increasing students' optimism in order to acquire resources to pursue goals, be persistent, and be open to opportunities.

To conclude, the exploitation of the positive characteristics and strengths of the young people foster not only the feeling of control in the career decision-making process but also the belief that their sufficiency in relation to the process depends mainly on their own resources. The positive powers may strengthen the motivation for action and the perceived progress towards the targets. As a result, the individuals continue the pursuit of their decisions and believe that they are capable of achieving them successfully. This all shows that if counselors are able to help young people to discern and exploit their positive powers in an effective way, they will help them to confront problems which exist when making career decisions and the uncertainty for the future (Argyropoulou & Kaliris, 2018. Larsen, Edey, & LeMay, 2007).

XII. Recommendations for Future Research

The present study found that optimism affects career decision making self-efficacy perceptions, which in turn appear to reduce career indecision level. Future research should seek to replicate these findings in larger samples in Greece, not necessarily adolescents. An important future goal would also be to test whether optimism is subject to change via interventions (i.e., adopting coping strategies) as mentioned above and whether that will consequently affect career decision making self-efficacy beliefs. Despite the above limitations, ours is one of the first studies that has empirically tested the relationship between optimism and career decision-making self-efficacy. Its significant results suggest that further research should be undertaken to replicate these findings.

In conclusion, this study contributes to the emerging literature on positive personality traits and emotions, in general in positive psychological capital, by introducing optimism which influences the highly demanding adolescents' career decision-making process. It also provides validity evidence from a new cultural setting (namely Greece) in favor of extending SCCT in the career decision-making process and also in extending person input variables such as optimism, in SCCT models.

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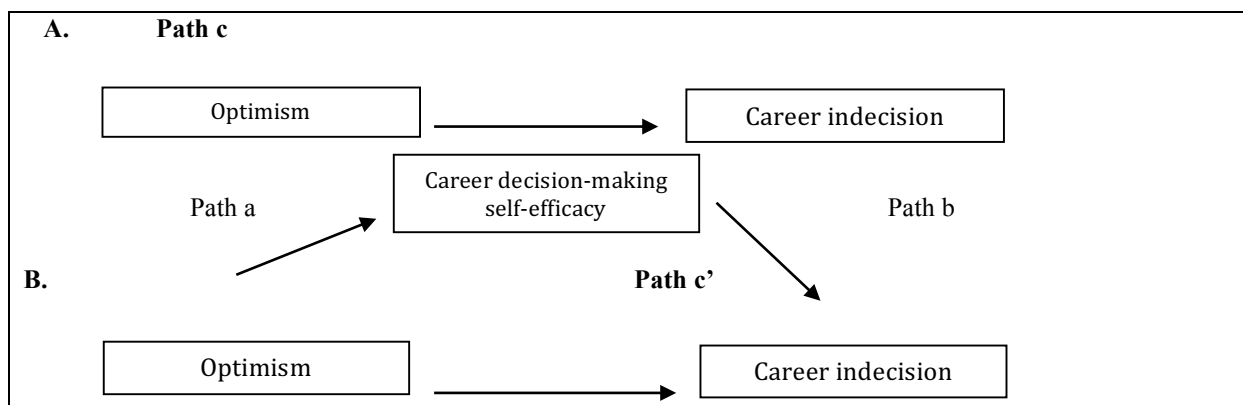


Figure 1. The hypothesized mediating role of career decision making self-efficacy between optimism and career indecision.

Table 2. Descriptive Statistics for all measures

Variables	<i>n</i> =153	
	<i>M</i>	<i>SD</i>
1. OPTIMISM	13,54	4,23
2. CDMSE	46,86	5,46
3. CDS	32,67	9,22

Note. OPTIMISM=Life Orientation Test (Optimism Scale), CDMSE= Career Decision Making Self-Efficacy, CDS=Career Decision Scale

Table 3. Summary of Mediation Test for Predicting Career Indecision

Variables	<i>R</i> ²	<i>n</i> = 153 <i>b</i>	<i>t</i>
Outcome: CDMSES Predictor: OPTIMS (Path a)	.04*	.27*	2,70
(Path b and c')			
Outcome: CDS Predictor: CDMSES (Path b)		-.51*	-2,91
Outcome: CDS Mediator: CDMSES Predictor: OPTIMS (Path c')		-.32*	-2.47
Model Summary	.11*		
Outcome: CDS Predictor: OPTIMS (Path c)	.07*	-.59*	-3.47

Note. CDMSES= Career Decision Making Self-Efficacy Scale, CD= Career Decision, OPTIMS = Optimism Scale. **p* <.05

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The Development of Learning Media Based on Problem by Using *Rubu' Al-Mujayyab* Media

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Abstract

This research is included into development research type. This research uses a 4-D model (define, design, develop, and disseminate) Thiagarajan, Semmel, and Semmel. This research is organized by learning media and instruments, namely: the student's handbook, the teacher's handbook, lesson plan, the student's exercise sheet, the student's mathematical problem-solving ability test. Tests conducted on grade X as many as 26 people in Madrasah Aliyah Muhammadiyah (MAM) 1 Medan. The results of this research indicate that: (1) learning media fulfills the valid criteria according to the experts or validator. The learning media fulfills the practical criterion, i.e. validator stated that learning media could be used with small revisions and the implementation of problem-based learning media by using *Rubu' Al-Mujayyab* lies on criteria IO = 4.35 high. The learning media fulfills the criteria of effective learning until 88%. The teacher's ability in managing learning process obtained an average of 4.08 categorized well, the achievement of the ideal time percentage of the activity of the students are in the attainments the ideal time of the activity of students with a tolerance of 5%, and the response of the students towards the learning obtained an average of 95.02%.

Keywords: Learning Media, Problem-Based-Learning, *Rubu' Al-Mujayyab*

1. INTRODUCTION

Education is the right facilitator in shaping societies and nations that aspired to, i.e., that cultured society and can solve the problems they faced every day. One of the science discipline has an important role in the era of globalization, namely mathematics. The role is seen in various sectors of human life such as computerization, transport, communications, economic/trade and development of science and technology (Masrinawati, 2003) and the students are expected to use mathematics and mathematical thought patterns in everyday life, and learning various types of science that emphasize logical rules and also the ability to apply mathematics (Saragih & Napitupulu 2015), straightened by Phonapichat, etc. the main teaching of mathematics is to enable students to solve problems in everyday life. Therefore, the importance of mathematics to be taught to students because mathematics is always used in everyday life (Banjarnahor, et al., 2017; Pinter, 2012).

One of the purposes of learning mathematics at school is the students are able to solve the mathematical problem, undoubtedly it is the heart mathematics activity and learning mathematics, as Napitupulu, (2008) wrote that problem solving is undoubtedly the heart of mathematical activities. Someone who does not have certain

rules/laws that can immediately be used to find answers for a mathematical question is called a mathematical problem (Hudojo, 2005).

But the specific fact is the student's mathematical problem-solving ability at schools is still low based on the mathematical problem-solving ability indicator according to the model of Charles, Lester, & O'Daffer [4]. This is demonstrated by observations made in MAN 1 Medan. From the results of mathematical problem-solving ability test provided the researcher to 25 students, the average score obtained by students was 40.63 then it proves that the student's mathematical problem-solving ability is still low, according to the categories of classification of the student's mathematical problem-solving abilities. From all cases that have been presented above shows that the ability of problem-solving to problems given is still low so that the student's learning achievements leads to the decrease. This possibility is caused by several things, including the learning that takes place now is less associated with the experience of students learning patterns, and less emphasis on mathematical problem-solving capabilities, in the learning process, the teacher is expected to choose a learning model that suits the material being taught. Learning Model is a design that depicts the process details and the creation of environmental situations that allow students to interact so that the developments or changing occurs to the student. (Amri, 2013).

Nowadays, teachers are also required to be able to apply learning models that are more centered on the students. Teacher based learning is no longer dominant, but more emphasis is on two-way interactions between teacher and student. The learning process will be better if there are more tangible interactions between students and teachers. (Sapta 2018) the same pinion is also stated by Amri (2013) that teachers should also be able to create a good learning media, that demands competence that should be owned by the teacher (pedagogy competence, personality competence, social competence and profession competencies), development of learning is one of the obligations which demands the teachers to develop competencies that are owned by them, in turn, can improve their existence as a professional teacher, the development of learning media is one of the obligations that teachers must carry out to develop their competencies, which in turn can increase their existence as professional teachers.

Learning media developing is not only useful for improving the students' abilities but also useful for teachers to improve the quality of their teaching and professional development (Azwar, et, al., 2017). One important factor that influences the teacher's success is to create a learning media. The learning media consists of the lesson plan (RPP), the Student's Activity Sheet (LAS), the student's handbook, the teacher's book. The quality of the media can be seen from the criteria articulated according to Nieveen [7]. A material can be said having a high quality if it fulfills the quality aspects, namely: (1) validity, (2) practically, and (3) effectiveness.

Learning media which will be used is Rubu ' Al-Mujayyab (Sine Quadrant). Rubu ' Al-Mujayyab astronomical instruments are the classic shape of a quarter circle with a simple design, and this tool has a specific function that is as a determiner of altitude and time (Butar-Butar, 2016). *Rubu' Al-Mujayyab* used by the muslim astronomer and later replaced by a lot of diversity of quadran (King, 2005) and until now, *Rubu Al-Mujayyab* is still used by some (Muslim) people in Indonesia to calculate and determine the direction of the Qibla (Qibla) and the longitude of the ecliptic and declination of the sun (Setyanto, 2004).

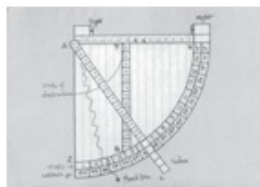


Figure 1. *Rubu Mujayyab* (Lindegaard, 2014)

Darren (1994) stated that the central part of the quadran gives an image which is available to see the distance of the Sun from zenith on meridian lines. *Rubu 'Al-Mujayyab* that developed in Indonesia is *Rubu' Al-Mujayyab* which is relatively small, which is ± 23 cm in size and made of various materials such as wood, plastic, and

brass. (Sakirman, 2018). There is also *Rubu 'Al-Mujayyab* which made of tusk and softer than the one made by brass and has two latitudes (Turner, 1997).

Rubu 'Al-Mujayyab is a classic tool that will assist students in understanding the relationship between the science that they have learned with the natural surroundings and are expected to enhance the mathematical problem-solving ability, especially at the subject of trigonometry.

This model-based learning model is an approach to teach students about authentic (real) problems so the students can build their own knowledge, develop high skills and investigations, to be independent students, and increase self-confidence (Trianto, 2011). Learning with the PBL model is one of the learning which centered on students and the teachers as the facilitators.

Arends (2004) states that problem-based learning (PBL) is designed to train students' abilities in solving mathematical problems, this is supported by Minarni (2012) states that learning based on problems significantly provides a better influence on achieving students' mathematical problem-solving abilities than conventional learning. In the PBL model having the learning steps proposed by Trianto (2011) is shown in Table 1. below:

Table 1. Main Steps of Problem Based Learning Model

Phase	Step	Teacher's Activity
1	Orienting students to problems	· Teacher explains the purpose of learning · Describes the required logistics · Motivate students involved in selected troubleshooting activities
2	Organize students to learn	· Teachers help students define and organize learning tasks related to the problem
3	Guiding individual and group	· Teachers encourage students to gather appropriate information, to carry out experiments, to gain clarity and problem solving
4	Develop and present the work	· Teachers assist students in planning and preparing suitable works such as reports, videos, and models and helping them to share the task with their friends
5	Analyze and evaluate the problem-solving process	· Teachers help students to reflect on their investigations and the processes they

2. METHOD

This research is development research. Development research is research that is used to develop or produce products or improve existing products (sugiyono, 2009; sukmadinata, 2012). This research is categorized as development research by using thiagarajan, semmel semmel development model namely 4-d model (define, design, develop, disseminate).

The subjects in this study were class X Muhammadiyah 1 Medan Aliyah Madrasah totaling 26 students in the academic year 2017/2018, while the objects in this study were media-based problem-based learning tools *Rubu 'Al-Mujayyab* on trigonometric material in the form of lesson plans (RPP), teacher's book (BG), student's book (BS), student worksheet (LAS), the results of the test of mathematical problem-solving ability.

Table 2. Intruments and Data Analyze Technique

The Aspect Scored	Instrument	The Data Observed	Response
Validation of problem-based learning media	Validation sheet	Lesson plan (RPP), teacher's book, student's book, student's worksheet (LAS), mathematical problem-solving ability	Expert/Specialist

Problem-based learning media practice	Observation sheet	Responses from the experts or validators	Expert/Specialist
	Observation sheet	Learning activity	Observer
The effectivity of learning	Test	Problem-solving ability test	Student
	Question	The student's response	Student
	Observation sheet	The teacher's ability to control the learning activity	Teacher
	Observation sheet	The achievement percentage of the student's activity ideal time	Student

The development of learning media is said to be of quality if it fulfills three aspects, which are valid, practical and effective. Learning media has a good degree of validity if the minimum level of validity achieved is in the valid category. If the level of validity is below the valid category, then revisions are made based on the input of the validators. Revisions are carried out until valid learning devices are obtained.

The results obtained are then written in the appropriate column in the table. Furthermore, this Va value or total mean value is referred to as the interval for determining the validity level of learning media based approach, can be seen in Table 3. as follows:

Table 3. The Criterion of Validity Level

No	Va or total score of average	Validity Criteria
1	$1 \leq Va < 2$	Not Valid
2	$2 \leq Va < 3$	Quite Valid
3	$3 \leq Va < 4$	Valid Enough
4	$4 \leq Va < 5$	Valid
5	$Va = 5$	Very Valid

The learning media are said to be practical if the validator states that the learning media developed can be used in the field with little revision or without revision and practicality. Learning media is measured based on the observer's assessment results to state whether the media can be implemented or not in the classroom using the provided learning media (Intended-Opera or IO). The instrument used is the observation sheet of the implementation of learning media that has been developed. Activities carried out to analyze the implementation data obtained from the results of observations are as follows:

To determine the score of Va or the average score for all aspects:

$$IO = \frac{\sum_{i=1}^n A_i}{n} \quad (\text{Susanto, 2012})$$

Description:

Io is the total score of average for all aspects

A_i is the average score for the $-i$ aspect

n is the amount of aspect

Furthermore, the average aspect value (IO) is referred to as the interval for determining the level of implementation of the media as follows:

Table 4. The Criterion of Learning Activity

Interval of Score	Criteria
$1 \leq IO < 2$	Very low
$2 \leq IO < 3$	Low
$3 \leq IO < 4$	Medium

$4 \leq IO < 5$	High
$IO = 5$	Very high

The criterion states that the media has a good degree of IO is a minimum level of OI achieved is high. If there is consistency between the results of the expert and practitioner's assessment with the results of observing the implementation of the media in the field by the observer (intended), namely that the results of the assessment are high, the media meets the criteria of practicality.

The learning media is categorized as effective if learning outcomes using learning media show: 1) Student's mastery in learning is classically fulfilled, 2) students' positive responses of learning. Each student is said to have completed his study (individual provisions) if the proportion of answers is 75% correct and a class is said to be complete learning (classical provisions) if in that class there are 85% of students completing their studies (Trianto, 2011).

According to Trianto (2011) based on the provisions of the curriculum the determination of learning conditions is determined by each school known as the minimum completeness criteria (KKM), based on three considerations, namely: the ability of each student is different, facilities (facilities) each school is different, and the carrying capacity of each student is different. So in this study, according to the KKM at the school where the researcher conducted the study, the individual completeness was 70, and the classical completeness was 85%. Based on the explanation above, to find out the percentage of students' abilities obtained by each cycle, the formula used is:

$$Final\ Score = \frac{student\ score}{total\ score} \times 100$$

To see the mastery in a classical way, we can use the formula:

$$Classical\ complete = \frac{total\ students\ who\ complete\ learning}{total\ research\ subject} \times 100\%$$

The action is considered successful if at least 85% of students reach the KKM. If it is less than 85%, the action is considered unsuccessful.

The ability of the teacher to manage the learning process is the ability to develop a friendly and positive learning atmosphere, including the ability to open learning, organize learning, close learning, managing time and manage the learning climate. Based on observations made by the observer in the implementation of learning, the ability of the teacher to manage the learning process is determined by the average score given by the observer of the rating scale as follows:

$$KG = \frac{\bar{A} + \bar{B} + \bar{C} + \bar{D} + \bar{E}}{5}$$

Description:

KG = the teacher's competence

\bar{A} = the average score of opening the class ability

\bar{B} = the average score of organizing the learning

\bar{C} = the average score of closing the learning

\bar{D} = the average score of managing the time

\bar{E} = the average score of managing the learning atmosphere

Teachers are said to be able to manage to learn if the average score is in good enough category. The student's response data obtained through questionnaires were analyzed based on percentages. The percentage of each response are calculated by the number of student responses on each aspect that appears divided by the number of all students multiplied by 100%.

$$RS = \frac{f}{n} \times 100\% \quad (\text{Herman, 2012})$$

Description:

RS = the student's percentage with the certain criteria

f = the amount of agreed students

n = the amount of students

The students' responses are said to be positive if 80% or more of the students respond in positive categories (happy, new, clear, and interested) for each aspect that is responded to. The data from observations of student activities during learning activities are analyzed based on percentages. The percentage of student's activity is the frequency of each aspect of observation divided by the number of frequency of all aspects of observation multiplied by 100% or,

$$\text{Percentage of student activity} = \frac{\text{Frequency aspect of observation}}{\text{Total frequency of all aspects of observation}} \times 100\%$$

The determination of the effectiveness of student's activity criteria based on the achievement of the ideal time set in the preparation of a realistic mathematical approach plan, as shown in Table 5. As follows:

Table 5. The Student's Activity Effectiveness

Category of the student's activity (1)	Effectiveness percentage (P)	
	Ideal Time (2)	PWI Tolerance Interval 5 % (3)
1. Listening/paying attention to the teacher/friend's explanation	25 % dari WT	20 % ≤ PWI ≤ 30 %
2. Reading/comprehending the contextual problem on the book/LKS	15 % dari WT	10 % ≤ PWI ≤ 20 %
3. Solving /finding the answer from the problems	25 % dari WT	20 % ≤ PWI ≤ 30 %
4. Discussing/asking to the teacher/friend	25 % dari WT	20 % ≤ PWI ≤ 30 %
5. Making a conclusion from a procedure/concept	10 % dari WT	5 % ≤ PWI ≤ 15 %
6. The student's behavior which is not related to the learning activity	0 %	0 % ≤ PWI ≤ 5 %

Source: *Modified* from Sinaga (2007)

Description:

PWI is the ideal percentage of time

WT is the time available at each meeting

The criteria for achieving the effectiveness of student activities in learning is if the six categories of the student's activity above met with a tolerance of 5%. Note that the criteria for tolerance limits 3 and 5 must be met. The result of the analysis is used to revise the media.

3. RESULT

The results of the media trial activities produce data on validity, practicality, and effectiveness. Validity data was obtained from two mathematics education lecturers who assessed the developing learning media. The validation result of learning media is shown in Table 6 below:

Table 6. Summary of Learning Media Validation Result by Experts

No	Object Scored	The Average Score of Total Validity	Validity Level
1	Buku Siswa student's book	4,26	Valid
2	Buku Guru Teacher's book	4,17	
3	Lesson Plan	4,06	
4	Student's worksheet	4,21	
5	Problem-solving ability test	-	
6	Independencyof learning questionnaire	-	

Trial I

In this study, there were 2 indicators of practicality applied, namely the response of a team of experts or validators stating that learning media could be used with minor revisions and the implementation of problem-based learning tools assisted by *Rubu 'Al-Mujayyab* in the IO criteria = 4.35 high.

Besides the practicality aspect, effectiveness is also needed as a condition of good learning media. In this study, there are 4 indicators of effectiveness were determined, namely the achievement of student learning completeness. The data of the field trial results for mathematical problem-solving abilities can be seen in Table 7 below:

Table 7. The Student's Learning Mastery Achievement

Category	<i>Pre-Test</i> Amount of student	Percentage of classical mastery	<i>Post-Test</i> Amount of student	Percentage of classical mastery
Mastered	6	23 %	19	69 %
Not mastered	20	77 %	7	31 %
Sum	26	100 %	26	100 %
Average	58,3		73,3	

From Tabel 7. Above, it can be seen that the class average of the student's mathematical problem-solving ability in the pre-test trial i was 58.3 while the class average of the student's mathematical problem-solving ability in the post-test trial i was 73.3.

The ability of teachers to manage learning was obtaining an average of 3.9 or in the category of "good" the achievement percentage of ideal time of the student's activity was in the ideal time achievement of the student's activity with a tolerance of 5% and student responses to learning obtained 78.9%

Trial II

The implementation of problem-based learning media assisted by *Rubu 'Al-Mujayyab* at the first meeting had a level of learning implementation in the IO criteria = 4.35, high ($4 \leq IP < 5$). In general, the Pilot Test 2 had a level of IO learning implementation = 4.35, high. Thus, the problem-based learning tool assisted by *Rubu 'Al-Mujayyab* has fulfilled practical criteria empirically. The data from trial II for mathematical problem-solving ability can be seen in Table 8. below:

Table 8. The result of the mathematical problem-solving ability

Category	<i>Pre-Test</i> Amount of	Percentage of classical mastery	<i>Post-Test</i> Amount of	Percentage of classical mastery
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	student		student	
Mastered	2	7 %	23	88 %
Not mastered	24	93 %	3	12 %
Sum	26	100 %	26	100 %
Average	54,9		80,1	

It can be seen that the class average of the student's mathematical problem-solving ability in the pre-test trial II amounted to 54.9 while the class average of the student's mathematical problem-solving ability in the post-test trial II was 80.1. The total average ability of the teacher to manage learning using a developing learning media in the second trial is 4.08 and is in the "GOOD" category. All aspects of the teacher's activity in managing learning also reach the category of "GOOD."

Percentage of achieving an ideal time of activities carried out by the students during the learning process took place using a problem-based learning media during the first and the second trial is on the threshold of effectiveness that has been set for each aspect. So that it can be concluded that in terms of the percentage of achieving the ideal time of student activity, it can be said that this learning device based on realistic mathematical approaches is effective for use in learning.

The student's response to all aspects, especially to learning medi, is the student's opinion on the learning component which consists of the student's book, student's activity sheet, and tests of mathematical problem-solving abilities which are 95.02%.

Based on the criteria of an effective device, namely the achievement of the target of student learning completeness, the ability of the teacher to manage learning and learning time that is not much different from the usual learning time and student responses obtained, the learning device used in the trial II has been effective.

4. DISCUSSION

From the description above, there is a quality of learning media, namely a media that has been developed and fulfills the valid, practical and effective criteria. The learning media that fulfills good valid aspects according to Rahman and Amri (2013) that the validity aspect refers to the extent of the design of the devices developed based on content validity and construct validity. Akbar (2013) adds that high validity is obtained through validation tests on learning devices developed. From the opinion of experts, it is also supported by the research of development carried out by Hasibuan, et. Al. (2018) Where, Based on the expert team of validation and revisions made, it was found that the development of learning media carried out on the teacher's books, student's books, RPP, LKS and tests that the results of device validation are in the category of valid, practical and effective and can be applied. In line with Ja'far, et al. (2014) where, the learning tools produced in this study include the Lesson Plan (RPP), student books, and Student Worksheets (LKS) that are character-based consistent and meticulous using the RME approach. Based on the results of validation and field trials the learning media developed have met valid criteria.

The learning media that has been developed meets the practical aspects of good or easy categories to be implemented. Practicality is that the learning media that is arranged considers the convenience aspect. Ease in the sense that compiled learning media can be easily understood and also easy to implement or use (Nieveen, 1999). According to Arikunto (2012), it means that practicality in educational evaluation is the facilities available in evaluation instruments both in preparing, using, interpreting/obtaining results and in saving. This is supported by the results of Riskasusanti, et. al., (2017) in his research showed a significant increase in student's problem-solving ability in four schools in three districts/cities in North Sumatra and this study compiled teaching materials in the form of textbooks and teacher manuals that included structured steps to solve problems mathematics based on problem-solving that can build high-level thinking.

The results of this study are also in accordance with the result of Simamora's et al. (2018) showing that the integration of local culture in mathematics learning is an important thing to consider in an effort to maximize the

student's mathematical learning achievements and reinforced Hidayat (2017) concluded that by using media *Rubu' Al-Mujayyab* the student's mathematical learning ability increases, this is indicated by an increase in classical learning completeness reaching 54% in the first cycle increased to 70% In the second cycle then in the third cycle increased to 87%. According to the research of Ammamiarihta, et. Al., (2017) that "Learning media has met the practical criteria in terms of the validator. The response to learning media is good and can be used with little revision, and the implementation of problem-based learning media is good". The meaning is that learning media meets good practical criteria and can be used with little revision. In addition, research conducted by Purwanti (2017) states that the results of the trials have met the practical criteria with the category "very easy to implement." The data is supported by observational data on the implementation of mathematics learning with the PBM model, with an average percentage of implementation reaching 91.67%.

The learning media that has been developed meets the effective aspects in terms of the completeness of learning classically and positive student's responses. Based on the results of the analysis of trials I and II, it was found that the student's mathematical problem-solving ability has met the classical completeness criteria. This is because the material and problems on the student's book and activity sheet are developed according to the conditions of the student's learning environment and refer to problem-based learning. With the application of problem-based learning tools, students will be actively involved in the problem-solving process. Students analyze and evaluate their own thought processes and draw conclusions from knowledge found with instructions and guidance from the teacher or friend in the form of questions that lead. This is reinforced by Vygotsky (Rusman, 2012) namely, learning based on problems is an effort to associate new information with cognitive structures that have been owned through learning activities in social interaction. Vygotsky (Arends, 2008) adds social interaction with other people both teachers and peers refer to constructing new ideas and increasing students' intellectual development. This is supported by the results of Minarni and Napitupulu (2017) in his research that developed teaching material based on Joyful Problem Based Learning (JPBL) concluded that the learning material developed was very effective in improving student MRA and strengthened Minarni's research results (2017) Student performance in solving problems, understanding mathematics is better in the JPBL class than conventional one.

According to Vygotsky's theory (in Trianto, 2011), namely: (1) the closest development zone (zone) (zone of proximal development); i.e., learning occurs when children work or learn to handle tasks that have not been studied but the tasks are still in their abilities, or those tasks are in the zone of proximal development; and (2) scaffolding, namely giving a large amount of assistance to a child during the early stages of learning, then the child takes over the responsibility that gets bigger as soon as he can do it himself. The positive response given by students is caused because the teacher has given stimulus in the form of feedback and reinforcement that is in accordance with the characteristics of students after learning the state of the class. In line with the opinion of Subandi (1982) that the response in terms of feedback (feedback) has a response or a large influence in determining whether or not a communication. In other words, the teacher is a component that determines the implementation of a learning strategy.

This statement is in line with Sanjaya (2010), namely the learning process is a complex process, which must take into account the various possibilities that will occur, those possibilities which then require careful planning from each teacher. A teacher must prepare a mature and accurate learning process because with learning planning the teacher will predict how much success will be achieved. This is reinforced by Surya and Syahputra (2017) concluded that a concrete learning model could be implemented to improve students' high-level thinking skills in solving mathematical problems.

The learning process experienced by students in this study has gone through the process of assimilation and accommodation also in the Zone of proximal development. This can be seen from the successful development of a mathematical learning tool on trigonometry using the development model of Thiagarajan, et al., better known as the 4-D model.

Learning tools developed in this study include lesson plan (RPP), Teacher's Books (BG), Student's Books (BS), Student Activity Sheets (LAS), tests of student's mathematical problem-solving ability. All the learning media developed use problem-based learning assisted by *Rubu 'Al-Mujayyab*.

Fulfillment of the validity aspect is in line with the opinion of Akker (1999) which states that validity refers to the extent of the design of the device based on the latest state of technology, art or science ('content validity') and various components of the media consistently related to each other ('construct validity').

5. CONCLUSION

From the discussion above, it can be concluded that mathematical problem-solving ability increase after implementing the learning media based on realistic mathematical approaches that have been developed. This study shows that the quality of learning media must have valid, practical and effective criteria.

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French Departments in Gulf Universities in Accordance with the Vision 2030: Reality, Challenges, and Prospects

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Abstract

French is the sixth most commonly spoken language in the world and the second most taught language in the European Union. There are 274 million people who speak French worldwide. Since the introduction of the term 'Francophone' in 1880 and the establishment of the International Organisation of Francophonie in 1970, countries that use French as an official language and French colonies have exerted their utmost efforts to revive and globally spread French. The French language has been spreading throughout the Gulf countries since the end of the twentieth century, on personal and academic levels. Saudi universities have established French-language departments in Jeddah and Riyadh. Gulf universities in Kuwait, Bahrain, the United Arab Emirates, Abu Dhabi, Oman, and Qatar have also established French departments to teach French as a foreign language or as an elective course. This study discusses the prospects and challenges of the French departments in some Gulf universities in view of the educational objectives of the 2030 Vision and the language policy in the Gulf states. It analyses their curricula and identifies the most important challenges facing these departments, including finding job opportunities for the graduates, competition in the labour market, and the weakness of certain students. The research will make suggestions as to the prospects for the future of the French departments in the Gulf States.

Keywords: French Departments, the Gulf Region, Curricula of The French Language Departments, Gulf Universities, the GCC' 2030 Visions, Future of French in the Gulf States, Challenges and Opportunities of the French Language

Introduction

Being the sixth most commonly spoken language in the world, and the second most learned language in the European Union, the French language is spoken worldwide by 274 million people. Countries that use French as a first language and French colonies have made very important implementations to revive and globally spread French. In fact, French is spread over all continents: Europe, Africa, North and South America, and Asia.

In the Gulf Cooperation Council (GCC) states (the Kingdom of Saudi Arabia, Kuwait, the United Arab Emirates, the Sultanate of Oman, the Kingdom of Bahrain and Qatar), the French language was widespread at the end of the twentieth century, on personal and academic levels. Universities, colleges, centres, schools, and private institutes began to teach French as a foreign language. In Higher Education, Universities in the GCC states

established French units, sections, centres, programmes, and departments to teach elective or mandatory French courses.

This research will try to highlight the position of the French language in the GCC and focus on these questions: What are the reality, challenges, and prospects of educational bodies in Higher Education, and what is the future of the French language, in the GCC countries?

The study will mainly focus on the French Departments in the Gulf universities which offer programmes, Bachelor's or Master's degrees in French or in translation. It will also emphasise some French sections, units or faculties that offer French as elementary or elective courses. It will also analyse their curricula, in accordance with the educational objectives of the 2030 Vision in the Gulf states and identify the most important challenges facing these departments, including finding job opportunities for graduates, competition in the labour market, and the weakness of certain courses. Because of the rarity of studies that have covered the subject, the authenticity of the official websites of the French educational bodies, and the need to check the local newspaper which publishes the latest news about the presence of French language in the Gulf, the study had to collect information from several websites, so the notes will include a lot of website addresses. Moreover, the news articles from French and Arabic newspapers have been translated into English.

The World Education Forum held on May 19–22, 2015, in Incheon (the Republic of Korea), set out a new vision for education for the next 15 years. During this forum organised by the United Nations Educational, Scientific and Cultural Organisation (UNESCO), the United Nations International Children's Emergency Fund (UNICEF), the World Bank, The United Nations Population Fund (UNFPA), the United Nations Development Programme (UNDP), the United Nations Entity for Gender Equality and Empowerment (UN WOMEN) and the United Nations High Commissioner for Refugees (UNHCR), over 120 ministers, 1,600 participants including heads and members of delegations, representatives of agencies and civil society, official organisations, teachers, youth and the private sector from 160 countries adopted (on May 21, 2015) the Incheon Declaration for Education 2030 which constitutes 'the commitment of the education community to Education 2030 and the 2030 Agenda for Sustainable Development, recognising the important role of education as a main driver of development'. (1)

Within the context of the Incheon Framework for Action Education 2030, educational quality is a central goal, so the GCC states started to implement 'Sustainable Development Goal 4 on Education 2030' in 2016. All the GCC countries are currently implementing their own 2030 Vision, to undergo a fundamental transformation in the education system to meet the needs of the labour market by establishing a stronger higher education system.

The Ministries of Education in these countries formed plans and defined stakeholders to match the outcomes of universities' departments with the needs of the job market. In the Momentum for Education 2030, the GCC states have used two systems for the management of higher education: either a joint government department for university and pre-university education as in Kuwait, Bahrain and Qatar, or the establishment within national governments of Ministries or Departments of Higher Education, as in Saudi Arabia, Oman and the UAE.

At the 7th Gulf Education Conference, 'Education for Work,' which began on February 21, 2018, at the University of Business and Technology (UBT) in Jeddah for the second successive year, Hameed reported that the Saudi Minister of Education Ahmed Al-Issa, said:

'Universities should keep pace with development plans and visions in our countries. For example, in the Kingdom, they must adapt their plans and programmes in accordance with Vision 2030's targets of raising the number of women at work to 30 percent, increasing local content in oil and gas to 75 percent and reducing the unemployment rate to 7%.'

Each country of the GCC has established its own vision: in 2008, Bahrain published 'The Economic Vision 2030', and Qatar 'Qatar National Vision 2030', Kuwait 'Kuwait 2035 Vision' and the UAE 'UAE 2021 Vision' in 2010, and finally Saudi Arabia with its 2030 Vision strategy issued in 2016. All these visions establish a relation between higher education and the economy. The GCC countries 2030 Visions can be found in the

official sites of each country as follows: Bahrain Economic 2030 Vision (2), Kuwait 2035 Vision (3), Oman 2040 Vision (4) Qatar 2030 Vision (5), Saudi Arabia 2030 Vision (6), and UAE 2021 Vision (7).

To highlight the relation between the Higher Education and the labour market, Wilkens specified that:

‘Higher Education plays an important role in society because it creates new knowledge, transfers it to students, and promotes creativity and innovation.’ Universities ‘are key actors in the production and dissemination of knowledge through research and instruction, and therefore bear a unique social responsibility for fostering values, citizenship, and civic engagement. They are also products of human capital, which is demanded by employers in the labour market and critical to social and economic advancement. When the quality and appropriateness of human capital produced align with the needs of society, employment opportunities are expanded, and economic actors are better able to achieve their goals’ (Wilkens et al., 201).

On the other hand, the Declaration of Incheon emphasises:

‘the relation between the fact of gathering and using evidence about changing skills which demand to guide skills development, reduce disparity and respond to changing labour market and societal needs and contexts, as well as to the needs of the ‘informal economy’ and rural development’ (Incheon Declaration, p. 41)’

This relationship between Higher Education and the visions of GCC states is closely related to the research for many reasons: first it will help to evaluate the reality of the French departments, sections, units, centres and programmes in GCC states, and it will lead the study to wonder if the Gulf labour markets really need the graduates of these French educational bodies.

This question is very important and crucial because French is facing several threats these days, so the research will analyse the needs of the labour market for the French specialisation, to study the opportunities for the French educational bodies in the Gulf region, and to explore the challenges that face the French Departments in Gulf Universities.

Indeed, the French government is trying to confront all the fears about the future of the French language by spreading it, and by encouraging people over the world to learn French. On May 29, 2017, Gaël Nofri published an article in *Le Figaro* titled ‘Francophonie: Is French still a language of the future?’ in which he analysed the human, geographical and political reality of French language. He expected that ‘the French-speaking world will be strongly influenced by its evolution to nearly 800 million speakers by 2050 or nearly 9% of the world’s population, compared to only 3.5% today, and it will be the language of youth’.

On March 21, 2018, Laurent Martin published in ‘*the carnet de la recherche*’ of the History Committee of the French Ministry of Culture and Communication, ‘*Politiques de la culture*’, a communication entitled ‘Cultural diversity and the defence of the language by France: the stakes of a modern external cultural action’ on the occasion of the Franco-Japanese forum held on January 16, 2016, in the auditorium of the Franco-Japanese House in Tokyo. During the forum, which was under the scientific direction of Mariko Oka-Fukuroi (Aoyama Gakuin University), he said:

‘The defence of the French language has long been the central pillar of France’s external cultural action and continues to be an essential element through the action of the cultural network abroad, one of the most important in the world. However, in recent years, a reflection has been emerging in the Ministry of Foreign Affairs and other governmental institutions to broaden this action and focus on cultural diversity and multilingualism, whether through audiovisual outside France, cultural diplomacy at UNESCO, the agency France-Museums or the various instruments of the Francophonie’.

In fact, the acquisition of a foreign language is a vital need for all mankind, and it allows them to communicate, to interact, to do business, to exchange information, to express opinions, feelings, and desires. The opening dialogue between cultures, civilisations, and religions requires us to learn, acquire and master many languages.

The French language is considered as one of the most important languages because it is the language of knowledge, culture, literature, poetry, art, philosophy and science. Learning French is a very important factor in communication, because of its cross-cultural influences and presence in the world. More than 24 countries on five continents use it, and it is an official language of work in many international organisations. In the 21st century, economy, knowledge, and languages help to create vibrant and progressive societies. Moreover, the brochure of Sorbonne University Abu Dhabi confirms that 'the French education system is known for its high level of rigorous critical thinking and debating skills, which play a significant role in developing future pioneers and leaders.' (8)

Learning French in the GCC states will open new academic and professional horizons for the students in the future, and income sources for the Gulf region, but let us face the truth and admit that hundreds of students (male and female) have graduated from the French Departments in the Gulf countries, but few of them have found good opportunities in the labour market. Some of them have expressed, through the local press and the social media, their fear, and their disappointment, others their aspirations to master the French language.

Badr Al Aikail replied to the complaint concerning the unemployment of the French Department graduates of the Faculty of Language and Translation at King Saud University (KSU). He defended 'the government which offered them all the occasions to study. He advised them to be patient and to try to develop their competences and skills to find the adequate job'.

In Kuwait, Al Mulla wrote about the students of the French Section at the Faculty of Education, who 'expressed their need to practise the French language, their hope to excel in their studies and asked the Kuwaiti government to pay more attention to the French language.'

In Oman, students of the French Department addressed several questions to the competent authorities and to those who care about it: 'What is our fault and what is the liability of those who are waiting to be employed? What is the solution now? Do we sit idly and wait for a mirage because the responsible concerned with our employment does not know even our specialisation? They wondered why universities decided to create a specialisation that does not have vacancies in the labour market, and why there was no coordination between universities and the job market. (9)'

French Departments, Sections, Units and Centres in GCC States.

The beginning of the 21st century marked a turning point in the Gulf Cooperation Council (GCC) countries, as it brought awareness that major social and economic reforms were needed to avoid future economic decline (Shochat, 2008: 69). As mentioned before, all the governments of Gulf states have recently introduced 2030 Visions to expand, enhance, and diversify income from non-oil industries. The Ministries of Education and Higher Education in these countries have changed their educational goals in accordance with the economic development and the needs of the job market because higher education opportunities will give rise to a future generation of ambitious individuals and will increase growth in tourism and the economy of the Gulf region.

The Gulf 2030 Visions confront the study with some facts about the future of the French educational bodies in the Gulf, the challenges that face them, the real needs of the Gulf labour market for the French language, and finally the level of the students to be competent in the job market. A lot of points arise to explore reality, opportunities, and challenges for the French Departments in the Gulf. At first hand, we will see which Gulf universities are teaching French and what will be their future in accordance with the Gulf state Visions.

Gulf universities in Saudi Arabia, Kuwait, Bahrain, United Arab Emirates, Abu Dhabi, Oman, and Qatar have launched French language departments, sections, centres or units to offer diplomas, minor programmes, Bachelor's or Master's degrees and to teach French as a compulsory or elective course.

Since 2001, most of the French educational bodies in the world and specifically in the Gulf region have begun to adopt the CEFR (*The Common European Framework of Reference for Languages*) published by the Council of

Europe in 2001. This framework fixed the four competences of learning a foreign language: reception (listening and reading), production (spoken and written), interaction (spoken and written), and mediation (translating and interpreting). It fixed six reference levels (A1, A2, B1, B2, C1, and C2), which use descriptors to define the learners' ability and proficiency at each level. The first two levels (A1 Breakthrough, A2 Waystage) concerned the basic user. The next two levels (B1 Threshold, Operational Proficiency, B2 Vantage) are for independent users, the fifth level (C1 effective) is addressed at proficient users, and the last one (C2 Mastery) represents a high level of mastering the language. (10)

Kingdom of Saudi Arabia

Saudi universities established French-language departments in the most important cities in the country. In Saudi Arabia, three French departments had been founded at King Abdul Aziz University (KAU) in 1983, King Saud University (KSU) in 1991, and Princess Norah University (PNU) in 2009. Some other universities teach French as an elective or mandatory course. Consequently, these departments do not require any previous knowledge of French because they begin teaching French from scratch.

King Abdul Aziz University, was the first, among the Gulf region universities, to found a French Section in the Faculty of Arts and Humanities in Jeddah. The French Section had been established for male students in 1983, and for female students in 1989. At first, the French language was introduced as a departmental course to the English Department and then as an elective one to other faculties of the university. (Recently, the Faculty of Tourism teaches two elementary courses of the French language.)

Since 1983, the English Department (the first department to be launched in the College of Arts and Humanities in 1969) was renamed the Department of European Languages and Literature, offering Bachelor's degrees in both English and French. The Department is currently planning to develop a translation track for undergraduate students and a Master's programme for English and French. Since its founding, the curriculum has been changed four times. In the beginning, the French Section offered a French curriculum of 134 credit hours to earn a French Bachelor's degree over four years. The students had to complete the mandatory French courses, could choose from a variety of optional French literary courses and must accomplish all Faculty and University requirements.

Then, in the second phase of the plan, the Department fixed the 26 French courses (94 credit hours) and 30 credit hours for the requirement of the Faculty and the University, such as Arabic, English, Islamic culture, Islamic studies, history, and geography, over four years. The students were studying 13 basic courses (which covered the four competences of learning languages), 10 literary courses, three 'civilisation' courses, two 'direct reading' courses, two 'text study' courses and one course of 'translation.'

In the third curriculum, after introducing the Preparatory Year at the University, the number of French credit hours was reduced to 76 (over three years), and the Bachelor degree required 128 credit hours. Unfortunately, in the fourth plan, the number has been reduced to 72 hours, and some literary and advanced courses were replaced by Faculty and University requirements. The actual programme offers 24 French courses (three courses of 'reading and comprehension', of 'grammar', of 'oral and speaking', of 'writing' and of 'translation', two literary courses, 'French and Arabic civilisations', 'introduction to linguistics', 'functional French', 'text summary', 'directed reading', 'research methods' and 'practicum'.

In 1991, King Saud University launched the French Department at the Faculty of Language and Translation in Riyadh. The French language course was established in 1977 within the curricula of the Centre for European Languages and Translation (CELT). Then, it was taught as an elective course for students in all faculties of the university.

In 1991, the Bachelor's degree was developed within the programme of the Department of European Languages and Translation, with the founding of the Institute of Languages and Translation, which was converted to the College of Languages and Translation in 1995. Until now, the French Department has changed the curriculum twice. The old curriculum included 174 credit hours over five years. The students used to begin their French

studies from the first semester. They studied 58 French courses (140 credit hours), and 34 credit hours for the other courses (Arabic grammar, Islamic culture and computer applications in translation). They studied four levels of basic French (reading, listening, speaking and writing), 'linguistics', 'linguistics text', 'introduction to semantics', 'introduction to translation', 'stylistics', 'comparative culture', 'readings in target language culture', 'sequential translation', 'interpretation', 'sight translation', 'consecutive translation', 'summary translation', 'bilingual translation', 'issues and problems in translation', eleven courses in specialised translation in several fields such as: agricultural, oil, security, political, commercial, educational, legal and literary translations, computer and finally a project in which the student must translate a book from French to Arabic or vice versa.

However, after the adoption of the preparatory year, the amount of credit hours in the new plan was reduced to 164 spread over five years (93 French credit hours over four years, 31 credit hours for the preparatory year, 12 Arabic hours for faculty requirements, eight for Islamic culture hours, and 36 hours for English courses (16 taught during the preparatory years and 20 hours over four years as Faculty requirements) (11). The Master's degree in Translation Studies was launched in 2010 in King Saud University.

In Princess Norah University, the Department of French Language and Translation was founded in 2009 in the College of Languages. The programme is formed of 130 credit hours taught over four years. The students start learning French from the first semester. The mandatory French requirements are 28 courses (88 credit hours).

The plan of the Bachelor's degree is formed of 130 credits hours, 88 French mandatory hours, nine for French elective courses, eight hours for other elective courses and 25 compulsory credit hours required by the University and the Faculty. The French obligatory courses are distributed as follows. They are composed of three levels of 'reading and writing', 'applied grammar', 'oral expression', 'directed reading', 'practical acquisition of oral language', 'workshop of writing', skills of using dictionaries', 'introduction to linguistics', 'introduction to translation', 'translation in the humanitarian and social fields', 'contrastive analysis', 'consecutive translation', 'translation in scientific and technical fields', 'translation of advanced texts', 'bilateral translation', 'computer-assisted translation', two levels of 'simultaneous translation', 'project', and 'practicum'. Concerning the elective courses, students must choose three of the following elective courses (nine credit hours): the three advanced levels of 'English language,' 'translation of the lexicon from French to English' and 'translation of the lexicon from English to French.' For the obligatory requirements (three courses) totalling seven credit hours, the college offers four levels of 'Islamic culture,' 'Arabic composition' and the first two levels of 'English language,' 'statistics,' two Arabic courses: 'applied rhetoric,' 'applied syntax and morphology.'

Recently, PNU has provided a French Master's programme in Specialised Translation. It offers two paths: modules and thesis (37 credit hours) and modules and research project (42 hours). both paths provide courses in 'translation theories', 'specialised translation', 'research methods', 'dictionaries', 'translation and technology', Islamic translation', 'media and political translation', 'economic translation' and 'writing techniques' and two elective courses (that should be chosen from these five: 'website translation', 'comparative linguistics', 'cultural interference and translation', 'ethics and professional skills of the interpreter'.

Students in the first path have a special elective course for 'critical research issues in translation' and should write a thesis (nine credit hours). The other path provides a second level of 'Islamic, media, political and economic translation,' 'teaching translation,' 'speech analysis,' 'practicum,' 'research project,' and offers a special elective course entitled 'audit and review techniques in translation.'

French is also taught as an optional or a basic course in other Saudi Universities such as Al-Imam Muhammad Ibn Saud Islamic University (ImamU), King Khaled University, Prince Sultan University, Effat University, Dar Al Hekmah University. All the French Departments in Saudi Arabia accept students who do not have any prior knowledge in the French language. They will learn French from scratch, and after three or four years they will acquire a high level of fluency and competence in the language.

These Departments aim to develop students' personalities, to improve their knowledge, to expertise their skills, to improve their proficiency in written and spoken communication, to train them and to introduce them to the public and private sectors in the labour market as professional teachers, translators, interpreters, editors, reporters, journalists, media correspondents, secretaries, tourist guides and sellers. They can also work in various fields such as scientific research, national and foreign companies, banking and finance, and the administrative, legal, educational and banking sectors.

To resume the 2030 Saudi Vision, the research reports the words of King Salman Bin Abdulaziz Al Saud, Custodian of the Two Holy Mosques. When he introduced Saudi Arabia's Vision 2030, he said: 'My first objective for our country is to be a pioneering and successful global model of excellence, on all fronts, and I will work with you to achieve that.' The 2030 Saudi Vision is established on three themes: a vibrant society, a thriving economy, and an ambitious nation.

This study will focus on the second theme, 'a thriving economy,' which provides opportunities for all by building a higher education system aligned with market needs and creating economic opportunities for the entrepreneur, the small enterprise as well as the large corporation. According to this objective, the education system must contribute to economic growth.

His Highness, the Crown Prince Mohamed Ben Salman Saudi, affirmed that:

'youth must enjoy higher quality, multifaceted education and has to be equipped for the jobs of the future, Saudi Colleges and Universities have to ensure that the outcomes of the education are in line with the labour market and the 2030 Vision Objectives. He guaranteed that the Kingdom of Saudi Arabia would continue investing in education and training so that our young students are equipped for the jobs of the future' (Saudi 2030 Vision).

By examining the Visions of the French departments and the future of French language in Saudi Arabia in adherence to the 2030 Saudi vision, the study assumes that the French Section of the Department of European Languages and Literature in KAU seeks to become:

'an academic entity offering distinctive academic quality characterised by elevated intellect, knowledge, and culture.' (12)

The French language and Translation Department in KSA adopted its own vision to be:

'a distinguished college that provides the community with specialists in the fields of modern language education and translation participates in meeting the requirements of the labour market and contributes to the development of bridges of knowledge.' (13)

The French language and Translation Department in PNU aim to:

'graduate distinct and qualified cadres in the field of French language and translation to achieve international knowledge and cultural communication to serve the community.'(14)

All the visions intend to graduate qualified students and specialists in the French language, so they can meet the needs of the labour market, meaning that these departments are in accordance with the 2030 Saudi vision, which is relying on its human capital and is determined to transform the industrial economy into a powerful knowledge-based economy.

In the 1960s and 70s, French was taught in public schools, but due to the complaints of some students about the difficulties of this language, the Ministry of Education cancelled the teaching of French in public schools and allowed Saudi students who studied abroad to be exempt from the French language (if they asked), even if they were studying in countries which taught French as a mandatory language in schools or colleges. However, a huge number of private schools introduced the French language as a foreign language, and recently some French schools (which teach French as a First language) have been opened in different regions of Saudi Arabia.

If the 2030 Saudi Vision is undergoing major changes in government, economy, construction, and education to fulfil its goals, the study suggests the reintegration of French language in public schools. This will offer opportunities to the French Department's graduates in the Saudi labour market to participate in and encourage tourism and intercultural aspects and will contribute to the success of the objectives of the 2030 Saudi Vision.

Alzahrani emphasised the importance of reconsidering the role of language in Saudi Arabia and proposed that:

‘educational policymakers should take action to ensure language education which is included in the Saudi Vision 2030’, and he raised the ‘awareness of how other countries have used language to acquire powerful positions in new markets and how this drives the development of a knowledge-based economy will help Saudi Arabia achieve the successes proposed by Vision 2030’ (Alzahrani, 2017).

Kuwait

In Kuwait, there are several universities and colleges that provide various degrees in French. Two French departments were launched at Kuwait University (KU): The French Unit at the Faculty of Basic Education in 2012, and the Department of French Language and Culture at the Faculty of Arts in the academic year 2014/2015. The third one is the non-degree Department of Arabic and Foreign Languages at the College of Arts and Sciences at the American University of Kuwait. In all these Kuwaiti educational bodies, students start as beginners at the commencement of the first specialised year.

The Faculty of Arts was among the earliest to be established at Kuwait University in 1966. The Department of French Language and Culture was founded in the first semester of the academic year 2014/2015 after it had been a programme administered by the Department of English Literature since 2006/2007. The department aims to develop linguistic and cultural concepts and practical experiences within a comprehensive context of modern human civilisations. Its message is to prepare and develop qualified competencies in the fields of French language and culture to meet the needs of the employment sectors in the State of Kuwait (15).

To graduate from this department, the student must accomplish 132 credit hours (48 for general knowledge, 60 for major specialisation, and 24 for supporter’s courses). The 60 major courses are divided into compulsory and elective courses. The 14 courses (42 credit hours) enable students to master the four competences of learning (reading, listening, comprehension and writing). The Department offers two basic courses and one advanced course of ‘reading, comprehension, and conversation.’ It also provides courses such as: ‘scientific research,’ ‘writing skills,’ ‘phonetics,’ two basic courses and one advanced course of ‘writing texts.’

The curriculum includes several introductory courses such as: ‘introduction to francophone literature and culture,’ ‘introduction to translation,’ ‘introduction to French linguistics,’ ‘historical introduction to French literature’ and ‘culture and introduction in grammatical and morphological studies.’ After completing 108 units, students must present a graduation project and choose topics in ‘French literature, culture or thought.’

For the six elective courses (18 credit hours), the students choose one course from the six groups which cover ‘media’, ‘culture’, ‘literature’, ‘literary criticism’, ‘comparative literature’, ‘theatre’, ‘linguistics’, ‘semantics,’ francophone literature, teaching French as foreign language and modern technology in teaching French language’.

After this level, the student could choose one course from the six groups of elective courses available, which include ‘media, culture or cultural relations between France and the Arab world’, ‘literature’, ‘criticism’ or ‘masterpieces and issues’, ‘speech analysis’ or ‘glossary and semantics’, ‘teaching French as a foreign language’ or ‘language modern technology in teaching French language’, ‘French/European comparative literature’, or ‘French/Arabic comparative literature’, ‘francophone literature’, ‘French literature and culture in modern and contemporary times’ or ‘French literature: masterpieces and issues’, ‘theatre and culture in the 20th century’ or ‘history of fine arts and French cinema’.

For the specialisation, the students should finish eight courses (24 credit hours) in one of the two support specialties: translation within the French programme or College courses. The translation specialty is only available for students of the French language programme. They have five mandatory courses (15 credit hours): 'introduction to terminology,' two levels of 'translation from French' and two of 'translation into French.' They have to study three elective courses: (nine credit hours), and select one course from the following: 'translation and culture' or 'media and translation'; 'special purpose translation' or 'translation and business administration'; and 'audiovisual translation' or 'computer-assisted translation.'

The Department of French Language and Culture offers French courses to the faculties of Arts, of Law, of Engineering, of Islamic Studies, and to the Commerce College.

The Unit of French language in the English department at the Faculty of Basic Education was established in 2012 to respond to the needs of the labour market. It offers a Bachelor's degree in French which consists of 132 credits over four years with 36 mandatory and elective French courses (72 obligatory hours and 36 elective hours). This Bachelor's degree will provide the labour market in Kuwait with 'national cadres of qualified teachers in the public schools of the Ministry of Education, especially for middle and high school.' (16)

At the American University of Kuwait and the College of Arts and Sciences, the non-degree Department of Arabic and Foreign languages provides a French course as an option, to develop proficiency in the four basic language skills (reading, writing, listening, and speaking) and appreciation of French culture. The Department aspires to be:

'the best department for the study of Arabic and foreign languages in the Gulf region, offering rigorous Arabic, foreign language, and translation instruction across a variety of levels, as well as advanced instruction in the Arabic literary heritage.' (17)

Recently, Kuwait has introduced the '2030 Vision Report' where the government plans to change the dynamics of the labour market so that Kuwait's economy will be fully driven by the private sector by 2030. The country's long-term development plan considers education as a catalyst to social progress, economic diversification, and sustainable growth.

Comparing the vision of the three Kuwaiti educational bodies and the 2030 Kuwaiti vision, the research finds that they emphasise the importance of the quality of the outcomes to compete in the job market and to fulfil the needs of the economic development.

United Arab Emirates (UAE)

In the United Arab Emirates, many universities offer French degrees, in particular, the United Arab Emirates University (UAEU) and Paris-Sorbonne University Abu Dhabi (PSUAD). At the American University of Sharjah (AUS) and the University of Sharjah (UOS), French has been introduced as an elective course.

The Department of Translation Studies at the United Arab Emirates University (UAEU), provides an English Bachelor's degree in translation, three minors in French, in German and in Korean, and a minor in business translation.

The minor in the French Language at the College of Humanities and Social Sciences of the United Arab Emirates University (UAEU) is an 18 credit-hours programme. It aims to equip students with basic written and oral skills of the French language. Students will have the ability to analyse and translate short texts from English and Arabic into French and vice versa. By the end of the courses, students should have acquired the necessary skills to take an exam set by the Chamber of Commerce & Industry of Paris to gain the 'French Professional Diploma B1'. (18)

The UAEU decided to introduce a four-year Bachelor's of Arts degree in the French language from September 2017. It consists of 132 credits over four years. Kazmi reported that Professor Adel Safty, Dean of the Faculty of Humanities and Social Sciences, announced that the course is a part of a drive under a recently signed cooperation pact to enhance cultural relations between the UAE and France. 'Learning a language is always advantageous for intellectual growth as well as for increasing employment and internship opportunities,' Safty added that the university's main objective was:

'to prepare students to meet the requirements of the job market. The faculty's mission is to introduce students to a major language to help them in the world of international business. Students will be required to attain proficiency and fluency in French ... so they can communicate with the Francophone world'.

But unfortunately, it seems that until now, the department has not opened.

The Paris-Sorbonne University Abu Dhabi offers various undergraduate and postgraduate degrees. All undergraduate degrees are taught in French, except for Physics (taught in English). To be accepted into this university, non-French-speaking students must study an additional year of intensive French classes to obtain the University Diploma (DU), which is mandatory. The Intensive French Course helps students to integrate into the Bachelor's programmes. PSUAD also gives degrees in French language and literature: a diploma in intensive French (one or two years), a Bachelor's in French literature, a Master's in teaching French as a Second language (one or two years) and Bachelor's in applied foreign languages.

The university requires a High School Diploma (or equivalent) to join the intensive French programme, and students who apply to join the intermediate level directly must take a French placement test. Since 2006, the university has provided world-class French education and French evening courses to a growing number of learners from around the world. (19)

The Diploma University (DU) in intensive French (a one- or two-year programme) is required for enrolment on any undergraduate programme. Over two semesters, daytime students receive approximately 23 hours of teaching per week to improve their language ability and skills in speaking, writing and listening. The evening course programme, offered for working professionals, is delivered over two years. Students are required to pass various tests during their studies, and for those who would like to prepare for the DU examination over two years, they can study a one-month course in France to practise the French language and to undertake the DELF B2 examinations of the CEFR. After getting this diploma, students can pursue further academic studies at Sorbonne Abu Dhabi University or at the Sorbonne University in France (20).

The Bachelor's in French literature explores the world of classical and modern literature, French and francophone writers. It teaches the most important competences of the French language and focuses on different expressions, verbal communication, techniques of writing, the historical and geographical varieties of the French language, linguistics, rhetoric, analysis, and synthesis. This programme prepares students to pursue careers in different fields such as teaching, communication, diplomacy, journalism, publishing, media, and audiovisual sectors, in demand in the UAE market. The degree is delivered by the Sorbonne University in Paris, according to the curriculum which follows the European, ECTS system:

'designed to make it easier for students to move between different countries. Since they are based on the learning achievements and workload of a course, a student can transfer their ECTS credits from one university to another, so they are added up to contribute to an individual's degree programme or training'. (21)

During the first two years, students will complete courses in 'literature and communication' and combine their studies with courses from other departments including 'history of art and archaeology' and 'history or philosophy and sociology.' During the third year, several elective pre-professional courses are added to the programme. This Bachelor's degree can lead to further study for the Master's in Teaching French as a Second Language at Paris Sorbonne University Abu Dhabi or institutions abroad. (22)

The Bachelor's in Applied Foreign Languages states as its objectives to train qualified students to meet the needs of the labour market with all the challenges that face the business market in the world. It is an exclusive three-year degree delivered in French or English with either German, Spanish, Italian, Arabic or Chinese that offers a double qualification in languages, economy, finance, business administration, marketing, human resource management, international business law, and management.

There is full cooperation between the UAE and France to spread the learning of French in the state. On May 30, 2017, the French Embassy, the American University of Sharjah (AUS) and the University of Sharjah (UOS) signed agreements to introduce the teaching of the French language. The French courses are taught to students enrolled in Bachelor programmes (23).

The two-year Master's degree in Teaching French as a Foreign Language is designed to broaden the knowledge and skills of teaching French as a foreign language (FLE) in Arabic countries. Those who have sufficient professional experience in this field can join the second year of the programme. It meets the needs of those who are interested in working in fields that sustain cultural relationships between Arab countries and France. The programme offers many courses focused on new information, communication technologies and methodologies of teaching French as a foreign language, linguistics, and comparative literature. (24)

The one-year Master's in Teaching French as a Second Language is designed for students to acquire the fundamental knowledge and skills required for teaching French in Arabic cultures. All courses which cover cultural relations between the French-speaking world and the Arab world, linguistics (French and contrastive, analysed in the French-Arab area) and didactics (cognitive, psychological, cultural and practical) are taught in French. (25)

In 2020, His Highness Sheikh Mohammed Bin Rashed Al Maktoum launched the 2021 Vision, which intends to make the United Arab Emirates (UAE) one of the best countries in the world. The UAE established its '2030 National Strategy for Higher Education' which seeks to equip a new generation of Emiratis to face the challenges of the future, to build and achieve the highest scientific and professional education standards to serve the UAE's future generations, and to ensure sustainable happiness and a better life for citizens as the UAE continues its path to diversification, growth, and development. It emphasises the need to provide youth with the necessary technical and practical skills to drive the economy in both the public and private sectors. It also aims to prepare a generation of Emirati professionals to sustain growth in vital sectors such as knowledge, economy, entrepreneurship and the overall development of the UAE's labour market. The UAE Government has set four main pillars to achieve this strategy: quality, efficiency, innovation, and harmonisation.

Hussain Ebrahim Al Hammadi, Emirati Minister of Education, affirmed that the Higher Education Strategy 2030 introduces:

‘a new model of education that empowers our students with the knowledge to face the future [...] Developing an innovative education system and enhancing students' skills are at the core of our strategy. We seek to engage the private sector in this process and continuously adapt our system, through research and studies, to develop curricula that will contribute to the UAE's competitiveness globally’. (26)

Analysing the Emirati 2030 Vision and the future of French educational bodies, the research assumes that all the objectives plan to prepare a new generation of specialists in teaching French, in translation, in tourism, and in communication. They also aim to sustain a cultural and civilisational relationship between UAE and France. This could open new opportunities for graduates in the labour market, in museums as tourist guides, in French companies in the UAE and especially in public and private schools as French teachers because ‘there are more than 25 French private schools in Dubai (27)’.

The *Al Bayan* newspaper affirmed that His Excellency Hossain bin Ibrahim Al Hammadi, Emirati Minister of Education, had revealed on February 16, 2018 'the intention of the Ministry to introduce the French language in public schools from the third grade next academic year 2018/2019'.

Sultanate of Oman

The French language in the Sultanate of Oman has long been taught in many international schools and universities: The Sultan Qaboos University, the Faculty of Tourism, the French language department at the University of Nizwa and the French school in Muscat.

On the study of the French language in the Sultanate, Al Jabery stated that His Excellency Dr. Hamoud Bin Khalfan Al Harthy, Undersecretary of the Ministry of Education for Education and Curriculum said that:

'an institution that attracts more than 1,000 students a year is a symbol of the vitality of the relations between France and the Sultanate in terms of language and culture, and we look forward to the sustainability of the Omani-French Centre and all its employees and hope to continue to grow more than ever in the service of the International Organisation of Educational Francophonie in Oman. The sultanate has always stressed the importance of learning foreign languages and the need to teach our students to introduce French as an elective subject in some of the sultanate's schools for 11th and 12th-grade students in four schools in Muscat and North Batinah governorates'.

At the University of Nizwa, especially in the Faculty of Arts and Science, the Department of Foreign Languages offers diplomas and Bachelor's degrees in French and translation. It intends to offer a stimulating and engaging language learning and study experience. It undertakes the mission of:

'offering quality English, French, and German programmes, together with courses in other foreign languages, to students of the University of Nizwa. This is primarily achieved through a focus on delivering stimulating lectures, creating an environment for meaningful classroom interaction, and developing students' language and cognitive skills'.

It aims to be known as:

'a vibrant department which offers first-class language, linguistics, literature and translation courses, and engages in cutting-edge research. In addition, we want to be student-centred, friendly and professional in all that we do'. (28)

Students who want to join the department must have a GPA (Grade Point Average) of not less than Good, which is the equivalent of 'C.'

In the French section, the minimum of hours for the Diploma in French and Translation is 72 credit hours including 24 credit hours for University requirements, six for mandatory university courses, six for college compulsory courses, 30 for major requirements and six for the minor. The ten courses taught in major are: elementary French, two levels of 'intermediate French', three courses of 'elementary and intermediate communication in French', 'written expression', 'practice of oral communication 1', 'practical grammar of language 1', 'phonetics and phonology', 'introduction to linguistics' and 'civilisation and history 1'. The two courses for the minor are 'initiation to translation from and to' and 'initiation to the interpretation from and to.'

The credit hours for the Bachelor's in French and Translation are 132 hours, which include 24 credit hours for university requirements, six for university elective courses, 12 for college requirements, six for college elective courses, 63 for major requirements and 21 for minor in translation. The 21 major courses comprise: three levels of 'written expression', 'practice of oral communication', two levels of 'practical grammar of language', two levels of 'French literature', 'phonetics and phonology of French', two levels of 'civilisation and history', 'introduction to linguistics', 'general linguistics', 'grammatical systems', 'sociolinguistics', 'applied linguistics', 'semantics and semiotics of language', 'comparative stylistics', and a 'project'. Among the objectives figure

their ultimate one: aiming to produce high-calibre graduates, employable in a wide range of fields, including education, translation, and interpretation, the media, and tourism.

Launched in 1986, Sultan Qaboos University (SQU) began with five colleges: medicine, engineering, agriculture, education, and science. The College of Arts, established in 1987, provides its students with studies that draw on the knowledge of both past and present civilisations. The Tourism Department in the College of Arts and Social Sciences was founded in 2001 because of the Sultanate of Oman's interest in enhancing the tourism industry. The Tourism Department aspires 'to become a leading national, regional and international centre of excellence in tourism and hospitality teaching, research and community service.' They have four mandatory courses entitled French for Tourism. (29)

Furthermore, the International Business Administration Department, at the College of Applied Sciences, At Rustaq offers courses leading to a Bachelor degree of International Business Administration in the three specializations: International Business Management, Tourism Management, and Hospitality Management and Accounting. In the specialization of Tourism Management, the department teaches four courses of elementary French.

Effectively, French will open new academic and professional horizons for the Omani students in the foreseeable future in the Sultanate of Oman.

It is worth mentioning that teaching French as a foreign language is optional in the Ministry of Education schools. Since 1970, it has opened two schools, one for girls and the other for boys. In 2013, there was a great development in teaching French. In the academic year 2013/2014, the Omani Ministry of Education introduced the French language as an optional subject for the post-primary education (for the eleventh and twelfth grades). The pilot was started in four schools until the experiment would be considered, then expand in this aspect

Al Khawaja stated that there are:

'187 schools which taught French, including 94 public schools and eight training centres', and 'in public schools, French has been taught in the eighth grade as an optional foreign language since 2004. Those who choose to study French in eighth grade are obliged to complete their studies until the tenth grade'. (30)

Oman accords a priority in producing students better equipped to meet labour market expectations. This objective goes with the Omani Vision 2030. The vision of 1995 was first replaced by the Oman 2020 Strategic Vision and then supplemented by a longer-term vision entitled 'Oman Vision 2040'.

Indeed, education holds the key to achieving the primary goals of the Sultanate's 2020 Vision, the country's long-term economic development plan. Economic diversification, sustainable development, the enhancement of human resources and the increasing of the role of the private sector to economic growth are linked in one way or another to the quality of the country's basic, secondary and tertiary education systems.

Education remains crucial for another reason, too. 'With about half of the country's population under the age of 21, it is imperative that the government find a way to create jobs for the growing number of nationals who will soon be entering the labour market'. (31)

The educational philosophy of the Sultanate of Oman includes many principles that encourage communication; respect and openness to other civilisations; knowledge; and acquirement of various skills. By teaching French in schools and universities, the Omani Ministry of Education seeks to identify the components of French culture and civilisation, to build the intercultural relations between the two countries, to develop respect for others and to cooperate with them effectively and positively.

For all these reasons, the study assumes that there are opportunities for the French departments and sections which intend to improve the skills and competences of their students to meet the crucial needs of the job market, particularly with the growth of diplomatic and economic relations between Oman and France.

Kingdom of Bahrain

In Bahrain, three educational bodies teach French: The Centre for French Studies, the Faculty of Arts at the University of Bahrain (UoB), and the Arab Open University (AOU). In fact, French is the second foreign language in Bahrain, although it:

'is still dwarfed by English, which is heavily subsidized by the United States and the United Kingdom. For both economic and political reasons, it is France's interest to cultivate the promotion of its language and culture in this small Gulf state (Bahrain)' (Benammour, 2014).

To spread the French language in Bahrain, France has signed an agreement with Bahrain to open the Centre for French Studies at the University of Bahrain to strengthen relations between the two countries. Opened in 2009, the Centre teaches an optional course in basic French, offered to students of three faculties: The College of Business Administration, the Faculty of Information Technology, and the Faculty of Science.

At the Faculty of Arts, the minor in French specialisation is an academic programme dedicated to students of the Faculty. Along with their main specialisation in the Bachelor's degree, they study 30 credit hours (10 courses of French) that include two basic French courses, two 'intermediate French,' three 'advanced French' and three 'specialised French.' The Centre of languages offers an opportunity to study the diploma in French for students of the Faculty of Arts at the University. It also provides French courses for the Bahraini community.

The University of Bahrain plans to introduce a BA programme in French and present it to the University Council for approval. On April 4, 2015. The Bahraini newspaper *Al Yaum* mentioned that Dr. Zayed Shaheen, Ex-Director of the Centre, expressed his hopes to offer:

'an independent study programme in French at the level of the Bachelor's or the level of the diploma to teach French, introduce its culture, and allows students to obtain more information, deepen their knowledge in French culture. The centre also aims to strengthen relations between the Kingdom of Bahrain and France and to build further bridges of communication, and to forge cultural, academic and scientific partnerships through the organisation of events such as exhibitions, seminars, lectures and cultural meetings [...] The increasing number of students demanding for French courses offered by the Centre encourages the founding of the French language programme. [...] 'the number of students registered in the different sections of the Centre, this year is about 426 students and expected to be increased in the next few years, given the importance of the French language in our time as an effective tool for communication, understanding and starting dialogues between civilisations and cultures'.

But unfortunately, the Centre has not yet established the programme.

Her Excellency Mme Malika Berak, French Ambassador to the Kingdom of Bahrain, attended the opening ceremony of the department for teaching French as a foreign language at the Arab Open University (AOU). This department was established by the University of Rouen by the French Director of the E-learning programme, Mr. Philippe Lane, and the Bahraini Director of the AOU, Mr. Samir Fakhro. They were pleased with the success of this partnership and the multimedia learning platform. Since the beginning of the 2006 academic year, the AOU has offered four French courses as a foreign language for the following diplomas: 'Certificat d'Aptitude professionnelle à l'Enseignement du FLE', CAPEFLE (Certificate of Professional Ability to Teach FFL), licence mention FLE (Bachelor's in FLE), Diplôme universitaire en FLE (University Diploma in French as a Foreign Language) and DUFLE et Master's FLE. These diplomas are recognised by the Bahraini Ministry of Education. (32)

The French Arabian Business School (FABS) at the Arabian Gulf University (AGU) (a member of the Federation of the Universities of the Islamic World, accredited by the Bahraini Ministry of Education and governed by the GCC countries), was established in 2007 as a result of an agreement between the French Ministry of Foreign Affairs, and the Arabian Gulf University. The FABS cooperates with the ESSEC Business School, one of the leading business schools in France and one of Europe's top business schools in the world. Unfortunately, the language of instruction is English, but the FABS gives weekly Spanish and French courses within the community service programme for all those wishing to learn the two languages.

Since 2007, the French Embassy in Bahrain has promoted the learning of French. In September 2010, French was launched on an experimental basis in five schools; all sixth graders start learning French with a session of 40 minutes per day. At the end of three years, the pupil should reach the level A2 of the CEFR and the level B2 at the end of the three following years. Furthermore:

‘the French Embassy supports this movement with training French teachers funded by the Cooperation and Cultural Action Department. The expansion of the French language education reform project should reach 59 colleges and 31 public high schools, plus a hundred private schools. The French Ministry of Education donated thousands of books to the Bahraini schools and hopes to see French book donations spread to all the high schools and colleges that do not yet have a French reading corner’. (33)

In regards to Bahrain's Economic Vision 2030, launched in 2008 by His Majesty King Hamad bin Isa Al Khalifa, the Bahraini government is trying to realise all the objectives which will lead:

‘to offering every Bahraini a better and more prosperous life. It is seeking to build a just society enjoying competitive aspects able to deal with all matters concerning the Bahraini society, government, and companies. In the 1990s, only three Bahraini public universities served as centres of Higher Education, but the 2000s were marked by a boom in education with the opening of twelve private universities, and the establishment of institutions while others worked in affiliation with foreign-based universities (34)’.

The Ministry of Education issued a 2015/2016 report which showed that there were ‘a total of 208 government schools, 75 private schools and 14 universities within the Kingdom (35)’.

Effectively, the Kingdom of Bahrain is reshaping its government, society and the economy, to pursue and realise sustainability, fairness, and competitiveness, The Vision entails shifting away from an oil-based economy and embracing a globally competitive one that is built by a productive and pioneering private sector.

Bahrain is focusing on the importance of an education system which meets the demands of the international market, and that was crystallised in the national educational initiatives launched in 2005. This was considered as one of the promising programmes in investing in Bahraini human capital to achieve the goals of 2030 Economic Vision.

On March 26, 2017, *Al Watan* stated that Dr. Majid al-Nuaimi, Bahraini Minister of Education, confirmed that ‘Bahrain has been able, for many years to teach the French language for its students in public and junior high schools, as well as its interest in teaching this language at the Higher Education level. As well as the opportunity to join the local or international labour market’.

Al Watan also reported that

‘the French Ambassador Bernard Reyno-Faber affirmed that Bahrain is one of the pioneers in teaching French in the Middle East and the government secondary schools have achieved outstanding successes in this area. He also praised the accomplishments in the implementation of the French language project in the preparatory stage’.

Moreover, the Higher Education Council (HEC) has an important role:

‘to make decisions based on evidence and setting policy based on the future direction of the country and the Gulf region. The outcomes of its work must allow the sector to produce graduates that have skills that employers need, that have entrepreneurial skills to become job makers and for graduates to be able to contribute to national economic growth and to society’.

HEC’s role has also focused on:

‘improving performance across the sector, to reach the 2030 vision of a world-class Higher Education sector. This has meant helping universities to learn from our international partners. Increasingly through globalisation, Higher Education is becoming increasingly collaborative, and HEC has developed strong international partnerships with many universities and experts coming to Bahrain to transfer their knowledge and expertise (36)’.

According to the vision of the Kingdom of Bahrain and the French presence in some Bahraini schools and universities, the research finds that there are a lot of opportunities for French graduates in the labour market, especially as France is making a great effort to introduce and spread the French language in Bahrain. Furthermore, both countries are acting to build excellent diplomatic, economic and cultural relations between them, which gives opportunities for the employment of graduates.

Qatar

In Qatar, there are two universities that teach French: Hamad Bin Khalifa University and Qatar University. The Translation and Interpreting Institute (TII) is part of Hamad Bin Khalifa University’s College of Humanities and Social Sciences. It was founded in 2012 with a remit:

‘to build capacity in Qatar and the region and to function as a physical and virtual space that delivers sophisticated translator and interpreter education, high-level training in a range of languages, and quality translation and to interpret services of the highest international standards.’ Its core mission is ‘to equip students for a successful career as translators and interpreters in multiple language combinations.’

Furthermore, the Translation and Interpreting Institute’s Language Centre in HBKU offers a French programme, besides programmes in several other languages: Arab, Mandarin Chinese, German, Italian, Spanish and Portuguese for personal enrichment or professional purposes. The Centre teaches these languages within a cultural context. The courses generally focus on the four aspects of language learning of the CEFR. The Centre also provides, ‘world-class education in translation, interpreting, and foreign language, contributing to the growth of the knowledge-based economy as a centre of education and research, and a service provider and employer.’ (37)

Additionally, it offers a minor in French which consists of regular courses for beginners spread over five weeks (20 to 35 meeting hours for each course ‘French beginner 1’, ‘French conversational course’, four levels of ‘speak French’, ‘French culture and current events’, and a specialised French short course, ‘French for travellers’.

It also conducts French placement tests, destined for beginners (A1), Pre-intermediate (A2), Pre-intermediate (B1) levels, and a ‘summer programme’ that consists of six different courses during the week and one specialised short course on Saturdays, French for travellers, to practise French and to improve speaking skills. ‘During this programme, no textbook is used, and the Centre provides relevant material for students.’ (38)

The College of Arts and Sciences at Qatar University (QU) offers a minor in French designed for beginners. It consists of a variety of language skill courses, in addition to an ‘introduction to French literature and civilisation.’ The programme allows students to develop functional communicative skills in French and enables them to become familiar with the diversity of contemporary French culture across the world. It presents 24 credit hours, including 15 credit hours in minor requirements (basic French, two levels of ‘intermediate French’,

‘language, culture and society’, ‘French for oral communication’ and nine credit hours in minor electives ‘French for oral communication ii’, two levels of ‘French composition’, ‘French phonetics’, ‘introduction to French literature’ and ‘business French’.

The General Secretariat for Development Planning in the State of Qatar launched Qatar National Vision 2030 (QNV 2030) in October 2008. The Qatari Vision intends to:

‘transform Qatar into an advanced society capable of achieving sustainable development’ by 2030. Economic, social, human and environmental development, these are the four central pillars of the plan’s development goals. The Qatari government seeks to meet these goals by developing a strong framework and implementing strategies to address the challenges presented in human development reports. (38)

According to the Qatari vision, French educational bodies in Qatar have established their goals within the QNV 2030 to equip the job market with specialists in teaching French, in translation, in tourism, and in business.

Conclusion

The study highlights the reality of the French departments, sections, centres units and colleges among the Gulf’s universities and finds that in each country of the GCC, there are more than two educational bodies which provide minors, diplomas, Bachelor’s and Master’s degrees in French language, literature and translation and offer French courses as college or university requirements. There are other institutes or centres that offer French courses for the community or give placement tests to evaluate the level of learning according to the CEFR.

In fact, the main specialisation, the amount of credit hours and the number of years to obtain the degree vary in the same country from one university to another.

The study finds that from all the Gulf universities there are only three (Sultan Qaboos University, Paris-Sorbonne University Abu Dhabi and Hamad Bin Khalifa University) that teach French for specific purposes through the Bachelor’s in Applied Foreign Languages, the ‘French for tourism’ at the Faculty of Tourism and the course of ‘French for travellers’ provided by TII. Several universities offer degrees in French language and translation, and others teach French language and literature.

In the following table, there is an overview of the degrees, the number of years, the amount of credit hours to get the degrees and the number of specialised hours at the French educational bodies in the Gulf universities.

Country	University/ Faculty/ College/ Department/ Section/Centre	degree	Year of Establishment	Credit hours for the degree	French Specialisation hours/CH
Kingdom of Saudi Arabia	King Abdul Aziz University (KAU) / Faculty of Arts and Humanities / Department of European Languages and Literature/ French Section	Bachelor’s in French Language and Literature	1983	128 over 4 years	72
	King Saud University (KSU)/ Faculty of Language and Translation/ French Department	Bachelor’s in French Language and Translation	1991	164 over 5 years	93
	Princess Norah University (PNU)/ College of Languages/ Department of French Language and Translation	Bachelor’s in French Language and Translation	2009	130 over 4 years	88
	Al-Imam Muhammad Ibn Saud Islamic (Imam U), King	Elective courses			3

	Khaled University (KKY), Prince Sultan University (PSU), Effat University (EU), Dar Al Hekmah University (DAH)					
Kuwait	Kuwait University' (KU)/ Faculty of Arts/ French Language and Literature Department	Bachelor's in French Language and Literature French courses for other faculties	2014/2015	132	60 for Major specialisation, + 24 for Supporters course	
	Kuwait University' (KU) Faculty of Basic Education/ French Unit	French language	2012	132	72 +36 elective French hours	
	American University of Kuwait College of Arts and Sciences/ the non-degree Department of Arab and Foreign Languages,	Optional courses			3	
United Arab Emirates	United Arab Emirates University (UAEU)/ Department of Translation Studies/	English Bachelor's degree in Translation with Minor in French			18	
	Paris-Sorbonne Université Abu Dhabi (PSUAD)	world-class French education and French evening courses	2006	one or two years 23 h per week		
		The University Diploma in Intensive French				
		Bachelor's in French Literature,				3 years
		Bachelor's in Applied Foreign Languages				3 years
		Master's in Teaching French as a Second Language		one or two years		
	American University of Sharjah (AUS)	Elective courses	2017		3	
University of Sharjah (UOS)	Elective courses	2017		3		
Sultanate of Oman	Sultan Qaboos University	Faculty of Tourism Four mandatory courses 'French for Tourism'	2001		12	
		International Business Administration Department the College of Applied Sciences, At Rustaq Specialisation of Tourism & Hospitality Management	2007		12	
	University of Nizwa Faculty of Arts and Science Department of Foreign Languages French Language Section	Diploma in French and Translation	2004	72	36	
		Bachelor's in French and Translation	2004	132	84	
Kingdom of Bahrain	University of Bahrain/ Centre for French Studies	Elective course	2009		3	
	University of Bahrain/Faculty of Arts	Minor in French language specialisation	2009		30	

		Diploma in French			72
		French courses for the Bahraini community			
	Arabian Gulf University (AGU) The French Arabian Business School (FABS)	French courses within the community service program weekly	2007		
	Arab Open University (AOU)/Department for Teaching French as a foreign language	French courses as a foreign language for diplomas:	2006		
		Certificat d'Aptitude Professionnelle à l'Enseignement du FLE CAPEFLE (Certificate of Professional Ability to Teach FFL)			
Licence Mention FLE (Bachelor's Mention FLE),					
Diplôme Universitaire en FLE (University Diploma in French as a Foreign Language) DUFLE					
	Master's FLE				
Qatar	Hamad Bin Khalifa University (HBKU) College of Humanities and Social Sciences The Translation and Interpreting Institute (TII)	Minor in French	2012	7 courses (20 to 35 hours) over five weeks for each	course. French specialised short courses 'French for Travellers'.
	The Translation and Interpreting Institute's Language Centre	French Summer Programme			
			a world-class education in translation, interpreting, and foreign language		
	Qatar University College of Arts and Sciences	Minor in French	January 2017	24 credit hours	15 French credit hours
			French Placement Tests (A1), (A2), (B1) levels.		

Accordingly, for the GCC states' 2030 Vision, the Gulf universities should change their curricula to launch a new interdisciplinary specialisation. In a previous study entitled 'Integration of knowledge between the Humanities to develop interdisciplinary paths according to the (Saudi) Vision 2030', Brengy suggested many solutions to match the outcomes of the French graduates with the needs of the labour market:

'launch paths between the French educational bodies and tourism, tourism guidance, marketing, media, journalism, the services of the Da'wa (preaching), the services of the pilgrims (in Saudi Arabia), the general guidance of youth, Social welfare and volunteerism, psychological service, environment and sociology departments' (Brengy, 2017).

As a result, the students in French language departments can have a double major with a French degree or minor in different disciplines needed in the labour market such as business, tourism, history, comparative literature, sociology, and psychology, besides the specialisations in translation and interpretation which need more proficiency and practice.

The study finds that the French educational bodies in Gulf universities must launch specialised Master's degree and Doctorates in translation, interpretation and in applied foreign languages.

Consequently, French teachers and professors must apply the cognitive, metacognitive and socio-affective strategies for learning foreign languages to teach their students the French language in a way that enables them to master the language and encourages them to overcome difficulties in learning French to compete in the job market and to continue their high studies.

Concerning the challenges of the future of French in the Gulf countries and specifically in Saudi Arabia after the privatisation of higher education, some French educational bodies may face serious challenges pertaining to the changes in their curricula, the cancelling of some specialisations or the establishment of new ones to meet the needs of the job market. However, the good diplomatic relations and the economic, educational, commercial and military partnerships between France and the GCC states will open new horizons in the labour market and will offer new opportunities for the employment of graduates from the Gulf states.

Notes

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The Use of Local Context Learning Material in Integrated Teaching and Learning Instruction at Junior Secondary School (JSS): A Case Study in Pekanbaru District, Riau Province, Indonesia

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Abstract

Teaching material plays an important role in teaching and learning instruction. Local context learning material experiences students to grasp and understand their potential culture and social as well as their local natural resources. However, not many teachers particularly Junior Secondary School (JSS) teachers use the local context learning material for their subject of study. Therefore, it is useful to use the natural local context material for integrated teaching and learning instruction for certain subject of study. This study aims to develop an integrated teaching and learning instruction model with a combination of five teaching subjects (Science, Indonesian Language, Social Science, Art Culture, and Craft) in JSS using local context as a theme of subject learning material. Need analysis is based on the results of the questionnaire, FGD, and interview to get the data before setting up a model, then tried out with JSS teachers. This model has proved and changed the method and technique of instructional learning which affects the improvement of students competence and understanding their environment.

Keywords: Learning Material, Integrated Learning, Local Context, Subject Study, Students Competence

Introduction

Learning material plays a very important role in teaching and learning instruction. There are some learning materials that a teacher can use in teaching and learning process, however, most teachers especially Junior Secondary School (JSS) teachers rarely use learning material developed based on the local context. Only a few teachers, particularly social science teachers who use local context as a learning material resource as (Firdaus, Djatmika, and Amirudin 2017) found out that local context as a source of learning material particularly for social science instructional learning is more meaningful and contextual for the learners. Most resource materials are from textbooks, printed newspapers, magazines, or the internet. However, these learning materials rarely talk about the specific natural resource of the local context of each province. As a result, JSS students do not care about their own potential natural resources as well as their culture.

At the present time, most JSS teachers still use the segregated method, not integrated teaching and learning for not the only the context of the material but also the subject study. Teachers only teach learning the material of

their own subject study and do not integrate with other subject studies. This kind of teaching and learning methods do not experience students to understand their own potential natural resource.

In order to experience the JSS students with their natural resource, it needs a model of integrated teaching and learning instruction for the subject of studies (Science, Indonesian Language, Social Science, Art Culture, and Craft) so that the learning will be meaningful for the students. Based on the reality of teaching and learning methods using the segregated technique of teaching of each subject study, it is needed to develop integrated learning based on the potential natural resource for learning material as a theme of several subjects to produce globally competent and skilled graduates.

This model will hopefully inspire teachers to conduct teaching and learning instruction in the class and help school principals and supervisors in conducting academic supervision to help teachers develop and improve their competence and skill of teaching. By implementing the integrated model of teaching and learning based on specific and unique local context as a theme of subject learning material, the students will be taught how to understand their potential natural resources as a whole and become care and love of their own culture, social, environment useful for their national development (Ministry of Education No 7 of 2014).

This teaching and learning model arise their attention and interest in how to maintain their natural resource and use it as a resource life. The intention and motivation of gaining knowledge and skill to make students have a characteristic of maintaining the natural resource using critical thinking, creative, and collaborative in the learning instruction reflects the form of 21st century learning characteristic, as Nichols (2013) states that learning is based on the students centre, collaborative learning, contextual learning, and endeavor to make students understand their society. This four learning principle is now still being taught separately in teaching and learning instruction in the class using different learning materials.

This model of teaching is contradicted with the natural ideas of children's learning in which they start to learning by understanding the whole aspect of their life. Children learn their environment as a unity of all aspect of life. This information and data were gained from the insights observation of the situation in JSS public schools 10 and 13 in Pekanbaru. The researchers were able to talk and discuss with the teachers in these schools so as to ascertain their views of the teaching and learning in general, and especially the use of local context for their teaching material. These meetings contributed valuable insights into methodology, training, materials and books, tests and testing, and all other aspects of the subject study programmes in their schools, as well as their views on how the programmes could and might develop in the coming years.

Learning activities integrating some subject studies motivate students to develop a concept of learning material and think logically to understand complicated problems of their environment and improving their critical thinking such as analyticity, cognitive maturity, CT self-confidence, self-evaluation, open-mindedness, truth-seeking (Hajhosseiny, 2012). However, teachers still teach the learning material of their subject studies independently without integrating with other subject studies.

Based on the problems and issues described, it is important to develop "An Integrated Teaching and Learning Instruction Model Based on Local Context," a learning instruction model which integrates some subject studies on the basis of local context (provincial and district natural resources and culture).

Literature Review

Learning and Teaching

Learning is a process of getting knowledge so that there will be a change of habit to the learners or students (Caplin (1972), Douglas (1978), Reber (1988), Arno (1981) and Skinner in Brown (2000). While teaching is to transfer knowledge or science as well as teaching materials to students. Traditionally, teaching is a process of giving information to students done by informal teacher talk, writing on the board, and demonstrating teaching

material, while students work individually by reading, listening to the teacher's explanation, doing their tasks, solving the problems, writing report, doing activities together with teachers and other students by asking and answering questions and so on. Stern (1983) defines teaching as: "the activities which are intended to bring about language learning." In conclusion, learning refer to the teachers and students' activities on their own roles, so that they will produce an effective learning condition which makes students be able to grasp and understand well about learning material.

In real teaching, a teacher should also concern to other aspects as Gagne and Briggs (1979) suggest that teaching consider learning principles, learning process, learning condition, and memory contribution consisting of intellectual skill, cognitive strategies, verbal information, attitudes, and motor skills. From the definition and the concept of teaching defined above, it can be concluded that teaching is an activity, a way of working with students, and the relationship between teachers students know and understand teaching material well.

Learning Material

Learning material plays a very important role in teaching and learning activities. Without learning the material, the learning activities cannot run well even though some teachers use their traditional teaching and learning in which a teacher explains the subject study material without preparing his/her teaching material. He/she usually talks while students listen during the meetings. Learning material can be books, non printed material such as cassette, video module (Richard and Renandya, 2002, Graves, 2000) or authentic material such as fruit that can be brought in the class, or environment around the school or outside the class. Other feasible and effective teaching and learning resources can particularly for language learning material such as in explanatory text writing learning (Lubis, Solin, Saragi (2019). The most important is that the learning material that makes students understand the useful of their potential local natural resources such as 'Selais Fish' in Pekanbaru and other natural resources in some district and provinces. Picture of Selais Fish' below representing the potential local context as a source of learning material of integrated teaching and learning instruction at JSS.



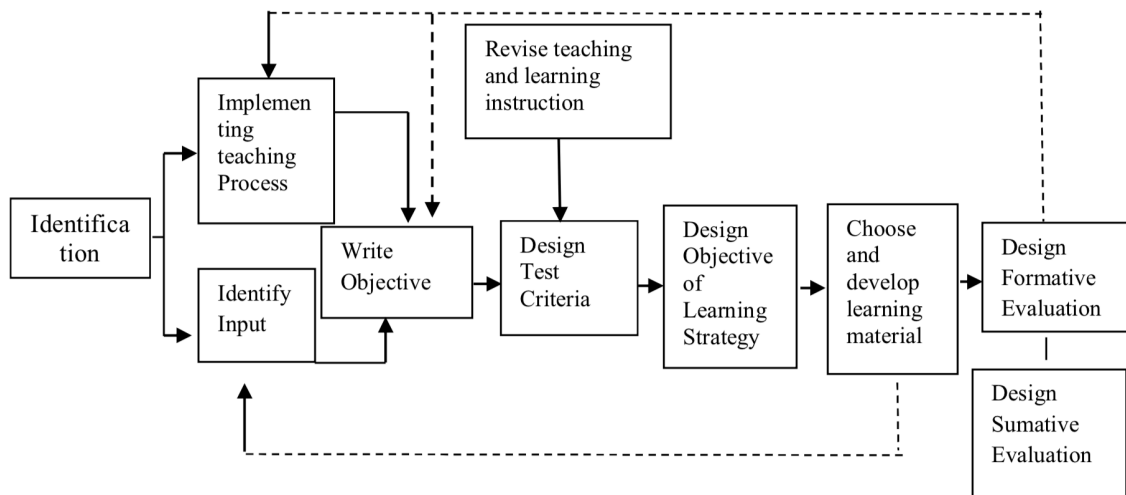
Picture of Selais Fish' in Pekanbaru

Next, learning material should stimulate and motivate students to learn (Alan, 1980:8) and easy to learn, meaningful for students, make students self-confidence (Tomlinson, 2001:7-22), and should be written in a style that suits their nature, purpose, and audience (Johnstone and Joughin 1997).

The use of local context for learning material also gives an advantage for students in which they know how to maintain the sustainability of the natural resources for the next generation. In the specific subject study such as the economic subject study, the local context for learning material has given an awareness for students that the natural resources should be maintained continuously. This maintenance using local value costs cheaper than the maintenance of the local natural resource using reforestation or cleaning water pollution (Kurniadi, 2018). By using local context for learning material, students become care and love of their own culture, social, environment useful for their national development (Ministry of Education No 7 of 2014).

Developing a model of teaching and learning instruction

The development of the instructional model, the nine steps of basic and procedure was adapted from Dick and Carrey (1978:5-6): (1) identify the objectives, (2) analyse the aims of the instructional learning, (3) identify the input, (4) write the objective of the performance, (5) develop test item, (6) develop learning instruction strategy, (7) develop and choose learning instruction, (8) design and implement formative evaluation, and (9) revise the learning instruction.



Adopted from Dick and Carey. P 3-4.

The chart shows the steps of developing a model of an instructional process, starting from identification of the teaching and learning components. From the identification, then to identify the input and the implementation of the teaching and learning process, followed by deciding the objectives of teaching and learning process. Revising teaching and learning process followed by the designing test criteria, and then design objective of learning strategy, and develop learning material and finally design formative and summative evaluation.

The process of developing a model

The steps of developing a model of instructional learning use the theoretical model as shown in the following figure.

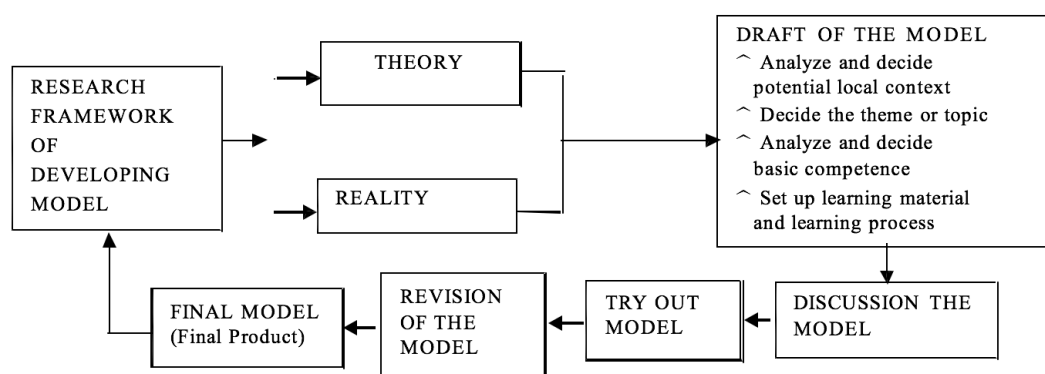


Chart 2: The process of developing a model

This model is developed based on the: (1) theory of instructional learning, (2) the result of need analysis, and (3) reality of teaching and learning in schools. From the combination of the three components, it was developed an integrated model of the teaching and learning instruction of several subject studies using local context.

A draft of the model was set in several activities: analyze and decide potential local context, decide the theme or topic, analyze and decide basic competence, and set up learning material and learning process. The draft was discussed with the experts and teachers of JSS. Then the draft was tried out in the class to see the reliability and acceptability of the model, and then the model was evaluated and revised based on the input of the teachers and students and the real situation in the class.

Integrated teaching and learning instruction

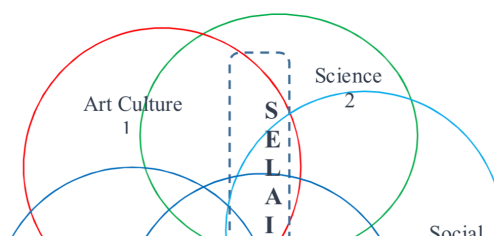
An integrated teaching and learning is an approach in learning instruction integrating context and method more than one subject studies to help students understand the context of subject studies This allows students work individually or work in group to actively find out and analyze the principle of learning holistically and authentically to give students a complete, integrated learning experience, literate teachers and supervisors (Cooper, Orrell, and Bowden,2010) . This method is regarded as a way of normal learning technique for children (Semiawan, 2002), but meaningful learning encouraged if there is not a feeling of safety (Loughran, 2005).

The learning approach using integrated teaching can enhance the learning outcomes of the students indicated by the blue of students exam result (Meizon, 1999). The intention behind work-integrated learning is to produce graduates who are able to integrate, adapt and apply this knowledge across diverse global contexts (Cooper, Orrell, and Bowden (2010:4).

An instruction learning places students an active learning subject that explores and develop their own potential motivation. Students are asked to contribute to solving the real problem they face by collaborative learning with their colleges. The integration of the multiple disciplines for the common concept and attitude to encourage students to see interconnectedness and interrelation hips among discipline that make students are motivated as they see these connections (Fogarty and Stoehr,1991). Therefore, it is necessary to value the dialogue, the knowledge, the exchange of experiences and information (Gehlen and Stobäus, 2019), then the integrated teaching and learning in different subject studies make the learners understand the whole concepts of the knowledge that brought into the material of the instruction. Stringer, Christensen, Baldwin (2010) quote the idea of Howard Gardner (2006) and Elliot Eisner (1997) that acculturation enables learners to acquire the particular language, and accepted cultural expectations and norms of social groups of which they are part.

The theory of developing model is not only as a guide to design a model or to develop a learning material but also a guide to developing a learning method and learning evaluation. This theoretical approach should be adjusted to context, condition, and real situation of the teachers and students in the class (Noor, 2007).

An integrated learning instructional model is an instruction which combines subject study with skill, concepts, and attitude interrelated to each other in the several subject studies. This model uses interrelated of subject studies approach adjusted to students learning experience in one theme, while other subject studies should be related to the learning material which has been previously discussed or taught from several angels of views and knowledge in the planned topic. However, when putting the material in the theme, it should be easy to understand by students. Therefore, the development should be interesting so that students are interested to learn to grasp the knowledge from the learning material.



Picture. Adapted from Fogarty, R., and Stoehr, J. (1991)

There are several characteristics of integrated instructional learning; (1) student centre, (2) direct experiences, (3) unseparated of subject studies, (4) uses some concepts of several subject studies in learning process, (5) flexible, (6) learning outcome increase on the student's needs (Asep, et. al, 2012:1-7). Besides, in the integrated learning instruction, it needs an integrated activity to explore the real object, topic, or theme of the facts or authentic object.

Local context (province or district context)

The context here means the atmosphere or condition of the local environment or local culture which means a potential and unique of each district or province. To maintain and use the local environment and culture wisely, there should be an effort to introduce these resources, especially to students, so that they will be able to understand the importance of their culture and environment such as natural resources for their life. This mission should be in the coordination of the provincial and district offices because keep very important role due to their principal works and task of the office. To keep and maintain the mission, therefore it is important for administrators and teachers to support each other to achieving the school's mission (Soland, Hamilton, and Stecher, 2013).

However, the research found out that most students do not appreciate their culture (Alexon et al. 2010). To respond this research findings, the Indonesia government set up a regulation to use an instructional learning based on the local context which means a potential and unique of each district and province to equip students with attitude, knowledge, and skill needed to understand and love their environment as well as develop local wisdom (Ministry of Education No 7 of 2014). This regulation is set up and explained detail that a potential unique of a district or province could be integrated into the national subject of studies, and make it relevant to instructional learning.

For the time being, most teaching and learning instruction still use textbooks as the main learning material while the teaching and learning activities mostly use the segregated model. The implementation of the segregated learning instruction particularly art and culture subject study, sport, health science, social science, and language will affect to the ineffective learning experience. Therefore, an integrated learning approach with the context of relevant social issues is regarded to be able to prepare the student for his/her long life learning (Bindel, 2018). There are few teachers who apply an integration of several subject studies in the instructional learning process based on the local context. To implement this model, it needs a strong team teaching of different subject study teacher high competence and committed teachers to work collaboratively to set up teaching plan, decide time allocation, and develop teaching and learning material.

Based on the indicator and learning material, the steps of integrated teaching and learning on the basis of text contains the level of education, grade, subject studies, and theme/topic. The step of teaching and learning of each integrated subject study is compound into the steps of developing knowledge, modelling, working

collaboratively, and work individually.

Develop an integrated lesson plan systematically (Ministry regulation No 22 of 2016) based on the indicator and learning material chosen. Therefore, the implementation of this model is very challenging, so that it needs teachers who understand the 2013 curriculum and material context of each subject study thoroughly. Besides, it needs a high commitment of teachers due to the needed time for discussion of the planning of the instructional learning, time schedule, and teaching and learning activities.

Research Method

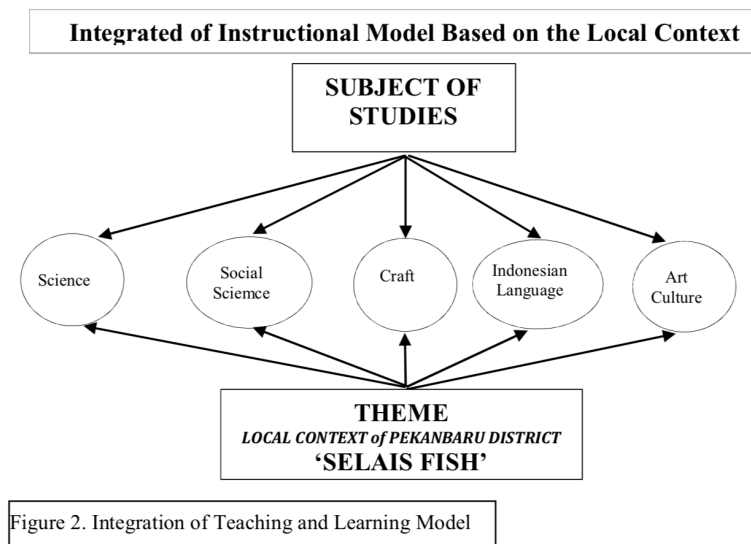
Research and development were used to develop the model consisting of two steps: First is to conduct preliminary research and the second is to develop a model. Questionnaires, observation, interview, and focus group discussion (FGD) were used to get information about the needs of students about the useful learning and teaching materials, learning and teaching methods, and learning evaluation. Secondary data consists of textbooks/learning materials, teachers' books, teacher's teaching preparation, student's exercises, syllabus, and other documents. The percentage of the students and teacher's perception was analyzed, then transferred into statements of which most or best or highest, fair or middle, and the least or the smallest.

Population and sample of the research are all students of the JSS public schools 10 and 13 in Pekanbaru. The sample was 400 students from the first, second, and third grade using sampling technique which is adopted from Lofland and Lofland in Moleong (2000:112). The teachers of science, social science, art culture, craft, Indonesian language were observed and interviewed what they need for the learning material of the local context.

The result of need analysis of teachers and students' perception and theory have used a basis of the developing a draft of the model. The draft of the model was tried out in the class to know the acceptability and implementation of the model. The revision was done based on the input and suggestion of the teachers and students, then, some experts validate it before the implementation in schools as an innovative model for teaching and learning in the class to strengthen students' comprehension about their potential natural resources.

Results and Discussion

The following integration model of teaching and learning based on the local context employs the use of local natural resource learning material. An example of local context is the "Salais Fish," a specific high production of Maritime natural resource in Pekanbaru District. This kind of fish is arranged structurally to become one several compound fish which forms an integrated several fish. This fish is managed in several kinds of cookies before it is served as one of the main menus after rice and vegetable, and it is served for lunch or dinner.



There are several steps of developing integrated learning instruction, i.e.: (1) deciding a theme, (2) analyzing basic competence, then choosing learning material from basic competence of other subject studies that can be integrated into the subject study, (3) planning an operational design of integrated learning instruction as a teacher's guide to conduct his/her teaching instruction. The steps of planning an integrated learning instruction: (a) to formulate a competence or learning objectives to be achieved by students, (b) to identify a concept of interrelated subject study to be integrated in learning instruction, (c) to formulate a scenario of learning instruction, and (d) to decide evaluation tool. Therefore, in learning activities, students should actively find a concept or principle of knowledge wholistically and authenticity, so that students will be able to learn to solve the real problem found in their daily life.

The implementation of integrated learning follows the steps of (a) analyzing a context to get the information about the condition, characteristics, local potential, best practice of learning activities done by teachers, (b) deciding a theme of learning material, (c) deciding a theme "Selais Fish", (d) analyzing basic competence of the chosen subject studies. (e) Deciding time allocation, and (f) deciding the sequence of subject studies to be learned. The integrated model of figure 2 shows that the integration of some subject studies in one theme. The integrated of science, social science, craft, Indonesian language, and art subject studies using the local context of Pekanbaru District 'Selais Fish' applies a system of the teaching-learning process of one theme, which means all these subjects use 'Selais Fish' as a topic of teaching-learning at all subject studies. However, each subject study still keeps the principle of teaching and learning of each specific characteristics of the subject studies.

The learning process of science subject study of "Selais Fish" theme encompasses addictive substance. This material describes natural and made the addictive substance in food and drink, the function of addictive substance towards food and drink, an addictive substance used in managing "Selais Fish", the technique of food conservation, and the procedural work of addictive substance in a human being. In social science subject study, the theme can be inter-island, regional, province trade or international trade, the objective, activities, the example, and advantage of inter-island or regional trade. For the learning material of craft, the learning topic discussed may: observe picture and video of managing "Selais Fish", describing the technique of safety working, designing the form of needed tool and product materials of environmentally friendly, displaying the work of students working group on the wall of the class, and others.

For Indonesian language learning material, the topic of "Selais Fish" is in the form of "exposition text" describing the social text of exposition, the structural text of exposition, and the items of language expository text. In the art culture subject study, the topic of "Selais Fish" is the describing the background of fish fumigation, the objective of fumigation, basic and kinds of fumigation, designing fumigation of fresh "Selais

Fish' using the natural additive substance, and the presentation and packaging.

Conclusion and Recommendation

Conclusion

Having discussed the model, it comes up with the conclusion that this model has aroused students to have more interest in those subjects and to realize their needs to have an understanding the importance of natural resource for their life.

This integrated teaching-learning process has the advantage to equip students to understand the general concept of natural resources in the different angel of science, social science, craft, Indonesian language, and art subject studies. The advantage of this model comparnged with other models of teaching and learning process is that the model is able to equip students an understanding wholly about one theme. On the other hand, the model also has a weakness, where not all teachers are able to integrate one theme in the teaching and learning process. Teachers also still do not understand the implementation of the model in their teaching activities.

This model, for specially Pekanbaru district, becomes a solution of learning instruction because this model integrates the district context/specific natural local resource without adding subject studies in the curriculum which makes a heavy burden of the national curriculum for Junior Secondary School (JSS).

Recommendation

To make this model successful implemented, it is suggested that the curriculum designers put the model as one of the teaching learning models of all subject studies. Therefore, teachers should be trained intensively and collaboratively especially the subject study teachers (science, social science, craft, Indonesian language, and art subject studies).

Other districts can also adapt this model for their specific potential natural resources. Therefore, it is suggested to Junior Secondary School (JSS) Subject Teacher Working Group (STWG) to deliver this model to all member of STWG and uses this model as an alternative method of teaching and learning process of all subject studies of JSS. It is also addressed to district educational office to intensively coordinate the school principle, supervisors, and teachers of JSS to put this model as one subject study in a 2013 curriculum training of subject studies.

Author contributions

Noor, Idris HM and Purnamasari, N design research, performed research, and data analysed. Both authors wrote the paper, proofread it, and approved the final manuscript.

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Designing Number-Based Word Synonyms (NBWS) Game as a Learning Technique

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Abstract

Mathematics and Indonesian Language are subjects that are considered difficult by students in Indonesia. In addition, students are also considered less creative. One way to solve this problem is to apply the game in learning. For this reason, a game that can solve the problem needs to be designed. The game that is hypothesized to improve math, language, and creativity is Number-Based Word Synonyms (NBWS). The purpose of this paper is to present the design NBWS game, which consists of ten levels.

Keywords: Games, Synonyms, Words, Numbers, Learning Techniques

In this article three things are examined: 1) Why NBWS game needs to be designed? 2) Games as learning techniques and their effectiveness, and 3) The results of NBWS game designs. The three studies are presented in sequence, as follows.

Why do NBWS games need to be designed?

The game of replacing letters in vocabulary with numbers and summing them up is an easy game. Henceforth the game is called the Letter-Number Change (LNC) game. How to play the LNC as follows: if A = 1, B = 2, and so on until Z = 26, then the word of money = 72%, hard work = 98%, knowledge = 96%, and attitude = 100%. In the LNC game, stated that because attitude has a value of 100%, then the word attitude has strong power, some even say attitude is what determines one's success. In 2005, when I first saw the LNC game in training, I was amazed. The LNC game was delivered several times to us during the training. The question arised, what if the vocabulary is in Indonesian? Is the attitude vocabulary in Indonesian which is *sikap* also worth 100%? Apparently, the *sikap* vocabulary is not worth 100%.

In 2010, a review of the LNC game was conducted, and it was produced that there was a mistake in the game. The error lies in: 1) the use of the concept of percent, and 2) the number of vocabulary words is not regulated, so they include both words and phrases. In the LNC game, letters of a word were only substituted by numbers and then summing it up using percentage unit. Supposedly, if a percentage unit is used accordingly, then the total number of each vocabulary is divided by the total number of all letters from A through Z multiplied by 100%. If A = 1, B = 2, and so forth until Z = 26, then the number of A to Z = 351. In this way, the results are as follows:

money = $72/351 \times 100\% = 20.51\%$, hard work = $98/351 \times 100\% = 27.92\%$, knowledge = $96/351 \times 100\% = 27.35\%$, and attitude = $100/351 \times 100\% = 28.49\%$. Thus, attitude is no longer 100%, but 28.49%. The second mistake is that there are no rules on the number of vocabulary words, so there will be many phrases that are 100% in number. Correcting the first and second error of the LNC game can result in obtaining the vocabulary that has a number greater than 100, such as corruption = 149 > attitude = 100. This causes the attitude vocabulary to have strong power no longer. Although mathematically wrong, the game of LNC can still be used as a distraction in adult learning, both as a warm-up and a refresher that can break the situation of freezing the mind and physical learners. However, this LNC game cannot be played when learning mathematics or integrated learning at school. If this LNC game is played in those learnings, it is feared that the children will experience a misconception.

Based on this error, Riyanto (2010) has designed the game, which is looking for the same meaningful vocabulary from Indonesian and English language which has the same amount of numbers. In the game, vocabulary is limited to only one. The results of the design show that of the several vocabulary counts, only the emas (Indonesian) and gold words (English) have the same number. This game is suitable for use as ice breaking in training or learning especially in the fields of mathematics and language. However, the game has a weakness, which is difficult to play because there are not many vocabularies in Indonesian and English that have the same meaning and the same amount of numbers. Because of that, other games that are easy to play and can facilitate children's learning need to be designed.

This LNC game is a blend of two elements, namely number, and vocabulary. The number is in a field of mathematics, while vocabulary is in a field of Indonesian. These two fields are the basic knowledge taught since elementary school. Mathematics is a subject feared by most students, whereas Indonesian is a subject that students are less interested in. Some students underestimate Indonesian because as a mother tongue language. As a result, most students have difficulty speaking Indonesian well and correctly. Based on the results of a survey conducted by Trends in the International Mathematics and Science Study (TIMSS) in 1999, 2003, 2007, 2011, and 2015 the mathematical abilities of Indonesian elementary and junior high school students were always at the bottom (NCED, 2004; Mullis, Martin, Foy, & Arora, 2012; Mullis, Martin, Foy, & Hooper, 2016). While the results of the 2012 and 2015 Program for International Student Assessment (PISA) survey, the reading and math skills of elementary and junior high school students were also at the bottom (Ranking Indonesia dalam PISA, 2013; Indonesia-PISA, 2015). According to Rosengard, around 58% of Indonesian children have reading skills below level 1, and almost none exceed level 4, even university graduates in Indonesia have the same reading ability as out of school children in developed countries which are members of the OECD (Kompas, 2017). According to Nizam, quality improvement has actually been massive but was going nowhere (Kompas, 2017). The results of the national examination are also still low. Since the national examination conducted to date, a passing grade is set at 5.50, whereas for the world level graduation limit is 6.0. In the Education Ministry report disclosed that the 1999/2000 national NEM at the high school level was 3.73 for physics, 4.61 for biology, and 4.63 for chemistry; at the junior secondary level the average was 4.85; and at the elementary level for 1998/1999 the average was 6.17, with the lowest value of 5.13 and the highest score of 7.19 (Info Ebtanas, 2000). According to Jalal, many regions have not reached national standards, for example, NTB, the Indonesian language scores 425, mathematics 444, IPA 429, while national average scores are 500 (Kompas, 2017). In fact, according to the OECD criteria, a different score of 25 alone shows a problem. In 2017, senior high school students, in Bengkulu Province, there were 54% of students who scored below 5.5 (Rakyat Bengkulu, 2017; Suara Pembaharuan, 2017). According to Tabri (2017), the 2017 National Examination score in Jambi Province dropped by 10-12 percent.

To reduce the fear of mathematics and increase student interest in the Indonesian language can be overcome through games. The application of games in learning is very suitable, among others, to support the achievement of cognitive goals in language learning activities, arithmetic, and science and to increase student interest (Heinich, Molenda, and Russell, 1993) and learning outcomes (Sapari, 2000): and Rieber (1996). The results of the study show a positive relationship between the game and student learning (Lieberman, 1977). According to Heinich, Molenda, and Russell (1993), the conditions of games are relaxed and pleasant, especially good for students who are low achievers who have difficulties from the types of structured learning activities. The use of

games can arouse learning interest (Randel, Morris, Wetzel, & Whitehill, 1992; Rieber, 1996) and play a role in shaping the emotional and social intelligence of students (Elias, Zins, & Weissberg, 1997). Games can increase attention, planning skills, and student attitudes (McCune & Zanes, 2001); memory (Jensen, 1999, 2000); language development (Clawson, 2002); as well as creativity and divergent thinking (Holmes & Geiger, 2002). Creativity can be seen as an aspect of problem-solving that has meaning in playing games. When children use imagination in playing games, either by using tools or without tools, they are more creative. A game that combines mathematics with language is Number-Based Word Synonyms (NBWS). Therefore, an NBWS game needs to be designed.

Games as Learning Techniques and Their Effectiveness

Games are activities in which players play according to predetermined rules that are different from reality to achieve the game's goals (Heinich, Molenda, and Russell, 1993). Games are usually carried out in an atmosphere of competition between individuals or groups that are guided by rules to determine winners and losers (Riyanto, 2010). So the games are activities that are arranged differently from reality, are competitive, and have winners. The difference between these games and everyday reality is what makes the games fun.

The technique as one of the components of learning resources is a routine procedure in managing materials, equipment, people and the environment to deliver the message. Techniques include programmed learning, independent learning, mastery learning, discovery learning, simulations, demonstrations, lectures, instructions, questions, and answers, etc. (AECT Task Force, 1994). Gerlach and Elly (1980) interpret techniques as paths, tools, or media used by teachers to direct the activities of students towards the goals to be achieved. Anthony (1963) defines techniques as a method of strategy or tactics used by teachers to achieve maximum results at the time of teaching in certain parts of the lesson. Based on these three experts, the technique is interpreted as a procedure or method. This interpretation differs in the level of breadth, AECT Task Force (1994) and Gerlach and Elly (1980) define techniques as procedures with very broad coverage, while Anthony (1963) means techniques as procedures with a narrow scope. In this paper, learning techniques define as concrete and specific ways used during the learning process to achieve learning goals.

Barth (1990) classified the game into learning techniques because it can provide value-deeper learning effectiveness. With games, classes will become more lively, cheerful study atmosphere, and full of spirit. In addition, students will be confident and pro-active to follow the lessons. According to Ginnis (2008), games can effectively change class dynamics and usually create a greater willingness to learn and behave. Therefore, the games should be used as part of the learning process, not just to fill in the blank or just playing. Games should be designed to be an event that is experienced by students.

Application of games in learning is very suitable among others, to support the achievement of cognitive learning in language, arithmetic, science, and increase student interest (Heinich, Molenda, and Russel, 1993); learning outcomes (Sapari, 2000) and Rieber (1996). The results showed a positive relationship between the game and the students' learning (Lieberman, 1977). According to Heinich, Molenda, and Russell (1993), the conditions of games are relaxed and pleasant, especially good for students who are low achievers who have difficulties from the types of structured learning activities. The use of the game can arouse interest in learning (Randel, Morris, Wetzel, & Whitehill, 1992; Rieber et al., 1996) and be instrumental in shaping social and emotional intelligence (Elias, Zins, Weissberg, 1997). Games can increase attention, planning skills, and attitudes (McCune & Zanes, 2001); memory (Jensen, 1999, 2000); language development (Clawson, 2002); as well as creativity and divergent thinking (Holmes & Geiger, 2002). Creativity can be seen as an aspect of problem-solving that has meaning in playing. When children use imagination in playing games, either by using tools or without tools, they are more creative. Thus, it can be concluded that games can improve learning outcomes and interests, foster creativity, explore desires and ideals, transform knowledge, and generate enthusiasm and motivation.

Through this playing activity, students will be activated in cognitive, affective, and psychomotor. Through the game, the learning process will be better. The game provides opportunities for students to understand their classmates, understand various abstract concepts, and see the real world around them. Through the game,

learning becomes fun. Fun learning makes students feel at home in school. Those who experience pleasant learning tend to repeat it and grow into lifelong learners. So, learning behavior is influenced by previous learning experiences. Therefore, learning needs to be conditioned so that learners can learn with high concentration.

NBWS Game Design Results

The result of the NBWS game design consists of ten levels game, ranging from very easy to very difficult. Ten levels of the game are: 1) replacing letters with numbers, 2) replacing letters in a word and summing them up, 3) replacing letters in several words and summing, subtracting, multiplying, or dividing them, 4) filling one or more letters in the equation, 5) finding two words that have the same number, 6) finding two words that have the opposite number, 7) finding a person's name that has equivalent number to words of characters, metals, plants, or others, 8) finding years of Indonesia important events that have equivalent number with Indonesian vocabulary, and 9) finding arithmetic results of science or non-science concept in English and Indonesian vocabulary, and 10) finding two words in Indonesian and English that have the same number. The ten-level game is presented as follows.

1. Level 1 (L1) Game: Replacing letters with numbers

This game is simply replacing letters with numbers. There are 26 letters of the Latin alphabet, so it is only necessary to memorize the numbers 1 to 26. This game can be used to remember letters and numbers at once. The game can be played for grade 1 elementary school children because it only remembers numbers and sequence letters. The game links the two elements, and both used to train memory.

The game is played by asking the children to replace letters with numbers

Example: If A = 1, B = 2, and Z = 26, what number are the letters P, R, and W?

Answer: P = 16, R = 18, W = 23

2. L2 Game: Replacing letters in a word with numbers and summing them up

This L2 game is more complex than the L1 game. In L2 game, players are required to be able, to sum up, numbers of letters in a word. So players are required to remember numbers of letters and then add them together. This game can stimulate memory and practice summation. This game can be played for elementary school students in grades 1 and 2. For grade 1 students, simple vocabulary is chosen, while for grade 2 students, more difficult vocabulary is chosen.

The game is played by asking the children the total numbers of certain vocabulary

Example: What are the numbers of each vocabulary below?

a) *Jujur*, b) *Semangat*, c) *Zamzam*, d) *Adab*, e) *Abad*

Answer: *Jujur* = *Semangat* = *Zamzam* = 80, *Adab* = *Abad* = 8

3. L3 Game: Replacing letters in some words and adding, subtracting, multiplying, or dividing them

L3 game can be played by adding, subtracting, multiplying, or dividing numbers of several words. This game can be applied to elementary school students in grade 3 or above. It can also be played competitively, for example, fast racing. This game can train memory and speed counting. Both of these abilities are basic capabilities for arithmetic operations and can increase vocabulary.

Example:

1) What is the sum numbers of *jujur* and *semangat*?

Answer: $Jujur + Semangat = 80 + 80 = 160$

2) What is the result of subtracting numbers of *jujur* and *semangat*?

Answer: $Jujur - Semangat = 80 - 80 = 0$

3) What is the result of multiplying numbers of *jujur* and *semangat*?

Answer: $Jujur \times Semangat = 80 \times 80 = 6400$

4) What is the result of dividing numbers of *jujur* with *semangat*?

Answer: $Jujur : Semangat = 80 : 80 = 1$

4. L4 Game: Filling one or more letters in the equation

This game is conducted by filling one or more letters in the equation. It can be played for elementary school students grade 4 and above. The game can improve children's abilities in solving equation problems.

Example:

Fill in the blanks in the equation below with one letter, so it completes the equation.

a) $L - \dots = 10$ b) $C + \dots = 15$ c) $\dots + \dots = 25$ d) $Y \times \dots = 175$ e) $H : \dots = 4$

Answer:

a) $L - B = 10$ b) $C + L = 15$ c) $O + J = 25$ d) $Y \times G = 175$ e) $H : B = 4$

5. L5 Game: Finding two words which have the same number

This L5 game can be played by anyone from children to adults. It requires mastering a lot of vocabulary. For players who have a lot of vocabulary, it is easier to solve it. This game can be used to develop persistence in finding two vocabularies that have the same number. In this game, a dictionary can also be used.

Example:

1) Find 2 words which have the same number.

Answer:

Semangat and *Jujur* = 80

Emas and *Damai* = 38

Malas and *Maling* = 46

Pancasila and *Pemilu* = 76

Abad and *Adab* = 8

2) Find 3 words which have the same number

Answer: *Zamzam* = *Semangat* = *Jujur* = 80

6. L6 Game: Finding 2 words which have an opposite number

L6 game is almost the same as L5 game. This game can be used to develop persistence in finding two words that have the opposite number.

For example: Find two words which have an opposite number.

Answer:

Besi \times *Kuat* (*Besi* = 35, *Kuat* = 53)

Adil \times *Serakah* (*Adil* = 26, *Serakah* = 62)

7. L7 Game: Finding a person's name that has an equivalent number with words of characters, metals, plants, or others

This game is almost the same as L5 and L6 game, but with a higher level of difficulty because there are limitations. This game can be played by children and adults.

- Finding your name or friend name that has an equivalent number to a certain Indonesian word
- Finding your name or friend name that has an equivalent number to a word depicting the character
- Finding your name or friend name that has an equivalent number to a word of metal concept
- Finding your name or friend name that has an equivalent number to a word of plant concept

Example: Find equivalent names Riyanto with certain Indonesian vocabulary

Answer: *Riyanto* = 102, *Pengetahuan* = 102

8. L8 Game: Finding important events that have an equivalent number with Indonesian vocabulary

This game is almost the same as the L7 game. This game can be played by children to adults.

Example: Find an Indonesian word that has an equivalent number with the year (2 digit ends) of Indonesian independence

Answer: Year of Indonesian independence = *Kerja* = 45

9. L9 Game: Finding arithmetic results of numbers of science or non-science concept in English and Indonesian vocabulary

This game is almost the same as L5, L6, L7 and L8 game with a higher level of difficulty because it involves many fields of science. Players are required to have a lot of Indonesian and English vocabulary in various fields of science and must be diligent in reading dictionaries. This game can train accuracy, perseverance, hard work, and diligence. The game can be played by children to adults.

Example:

- 1) What is the summation number of Gold (English vocabulary) and *Emas* (Indonesian vocabulary)?

Answer: $\text{Gold} + \text{Emas} = 76$

- 2) What is the subtraction number result between English and Indonesian vocabulary of metal?

Answer: $\text{Gold} - \text{Emas} = 0$

- 3) What are the results of times (you) of the English and Indonesian vocabulary of metal?

Answer: $\text{Silver} \times \text{Perak} = 85 \times 51 = 4335$

- 4) Find English and Indonesian vocabulary that has the same meaning and one difference!

Answer: *Kerja keras* = 99 and hard work = 98

- 5) Find English and Indonesian vocabulary that has the same meaning and difference of six!

Answer: Knowledge = 96 and *Pengetahuan* = 102

- 6) What is the sum of 2 Indonesian vocabularies of *Besi* and *Emas*?

Answer: $\text{Besi} + \text{Emas} = 35 + 38 = 73$

- 7) What is the difference of 2 Indonesian vocabulary of *Besi* and *Emas*?

Answer: $\text{Besi} - \text{Emas} = 35 - 38 = -3$

Note: Metal elements can be replaced with elements or concepts in other fields

10. L10 Game: Finding 2 vocabulary in Indonesian and English have the same amount

This game can be played by anyone from children to adults. This level game has a higher level of difficulty because besides there are limitations, and players are also required to find 2 vocabulary words from Indonesian and English with the same number of numbers. This game requires mastery of a lot of vocabulary both Indonesian and English vocabulary. For players who have a lot of vocabulary, it's easier to find 2 vocabulary words that have the same number of numbers in Indonesian and English, for example Gold = Gold = 38. Players are required to have a vocabulary of two languages or have to read the dictionary diligently. This game can train accuracy, tenacity, hard work, and crafts.

Example: Find 2 Indonesian and English vocabularies that have the same meaning and number!

Answer : $\text{Gold} = \text{Emas} = 38$

Based on the design results there are 10 levels of NBWS games. Each level of the game has different levels of difficulty. The design of this game is based on the theory that children, even adults love to play. The subjects presented through the game will make students happy. The game is designed in integrated learning. Integration can consist of two or more subjects, can also be combined with all the concepts of the subject. In addition, this NBWS game can be played both inside and outside of school learning, either alone or in groups.

Conclusion

In this paper, the developed NBWS game is described. The NBWS game can be applied as a learning technique. It could theoretically facilitate children in learning mathematics (arithmetic) and Indonesian language (develop vocabulary), also increase the creativity of learners.

Recommendation

Based on the results of the NBWS game design, it is recommended that: 1) the NBWS game design is validated and evaluated both in class and outside the classroom and 2) the results of the L3 game design can be further developed into more complex games, such as: changing letters in several words and adding up, subtracting, multiplying, or dividing the results in word form.

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Research and Analysis on Colleges Student View the "Four Regression" of Applied Higher Education Institutions: Take Jiangzhe Higher School as a Case

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Abstract

It has become a common phenomenon in universities that "crazy university, happy universities," which makes it urgent for higher education to "return to common sense, duty, original heart, and dream." Following the general direction of "education reform," this paper proposes the hypothesis that "four regressions" which can affect students' regression criteria on the basis of combing relevant literatures domestically and abroad and verifies its correctness through structural equation. In addition, the user's portrait was used to analyze and conclude the characteristics of college students, and regression analysis was used to explore its causes, so as to make suggestions for educational reform.

Keywords: "Four Regression," Structural Equation, User Profile Analysis, Regression Analysis

1 Introduction

The research on the study of Chinese university students and analysis of college students in the United States point out it is a common phenomenon that it exist problems of low classroom challenges and the light academic burden of college students in China universities. On June 21, 2018, Minister Chen Baosheng delivered an important speech at the Undergraduate Education Work Conference of the New Era National College of Higher Education, "Adhering to the principle of promoting the four-fold return to build a first-class undergraduate education with Chinese characteristics and world-class level." The "four regressions" firstly emphasizes that college students should realize "return to common sense"; the director of the Department of Higher Education, Wu Yan^②, also interprets the new development of higher education reform and development in the speech of "Comprehensively grasping the situation and revitalizing the undergraduate to play the role of the teaching and learning committee fully" . "Four Returns" points out that college students should study hard and return to common sense. In summary, the definition of "four regressions" is defined as returning to common sense,

students should study hard and master the skills for practical service; returning to the duty, teachers should continue and convey spiritual values, and also should concentrate on teaching and educating students; At first glance, colleges and universities should cultivate talents that the society needs and conform to the development of the times; returning to dreams, education must be a dream of building a first-class university and building a first-class discipline.

Domestic similar subjects mainly focus on three aspects of college academics, students' rating system, and university reform. Zhang Liangyue and Guo Suling^[1] believe that local colleges and universities still have problems in the overall development of education, which is still stuck in the development model that satisfies demand, and the insufficiency of connotation development. It should pay attention to the development of specialty and discipline, attach importance to the development of teachers' connotation, and pay attention to improving students' ability development in three aspects. Shang Hongjuan^[2] proposed through the study of first-class undergraduate education in the United States. In the undergraduate study period, American universities aim to provide students with adequate learning opportunities and learning rights, focusing on cultivating students' critical thinking and curiosity, emphasizing students' five core competencies of writing, reading, querying, quantitative analysis, and communication to allow students to "learn how to learn."

Similar topics abroad focus on the evaluation system of higher education quality and the factors that affect the quality of education. The certification of colleges and universities in the United States include the student dimension indicators, which focus on improving the quality of students' training. Pace^[3] and Austin^[4] emphasize the important role of learning input. The former emphasizes the time and effort of learning input, while the latter combines learning input with the external environment to influence the learning output jointly.

Through combing the domestic and foreign literatures, we found that most scholars have reached a consensus on the issue of "current university education needs reform." At the same time, many scholars believe that university education reform has entered the deep water area, and the reform at this stage needs to be led by scholars. At the same time, the government's influence on the issue is reduced. Most scholars only elaborate on the relationship between reform and education, the thinking of reform, and the goal of reform, but they ignore the main role of students in it. However, in order to truly achieve the goal of improving the quality of university education, it is necessary to start from the students and gain an in-depth understanding of the factors that influence the better development of students throughout the education system. However, there are few systematic models in the literature about "factors affecting student development," and fewer literatures elaborate on systematic strategies that influence the return of contemporary college students.

2 Methodology

Overall, this paper takes the undergraduate students in Zhejiang Province as the survey and uses the structural equation to verify the hypothesis that "four regressions" affecting the students' regression criteria. Through cluster analysis and regression analysis, three types of student portraits are formed, and the causes are explored. A total of 472 questionnaires were issued, 448 valid questionnaires, the effective rate was 94.9%, and the reliability coefficient Cronbach's Alpha was 0.815. The reliability was good. There are 200 males and 248 females in the gender distribution. There are 50 key universities, 274 general undergraduate colleges, and 121 independent colleges. The samples have good representativeness and stability.

2.1 Structural equation

In order to verify the "four regressions" which can influence the hypothesis of student regression criteria, and in order to quantitatively explore the strength of the relationship under the assumption, the hypothesis is established, the indicators constructed from the literature review and interviews observed variables, corresponding to the structure " Exogenous latent variables of four regressions and endogenous latent variables affect students' regression criteria, using AMOS 23.0 and solving the model parameters by maximum likelihood estimation method, establishing measurement model and structural model .

The measurement model describes the relationship between the latent variables ξ, η and the observed variables X, Y . Where Y is a vector of endogenous observation variables; X is a vector of exogenous observation variables; η is an endogenous latent variable; ξ is an exogenous latent variable; Λ_Y is an endogenous observation variable on the endogenous latent variable Factor load matrix, which represents the relationship between the endogenous latent variable η and its observed variable Y ; Λ_X is the factor loading matrix of the exogenous observed variable on the exogenous latent variable, which represents the exogenous latent variable ξ and its observed variable X . The relationship between ϵ and σ is the residual matrix of the measurement equation.

$$Y = \Lambda_Y \eta + \epsilon$$

$$X = \Lambda_X \xi + \sigma$$

The structural model expresses the relationship between exogenous latent variables and endogenous latent variables and graphically forms a path map. Where B is a matrix of structural coefficients, which represents the interaction between the constituent elements of the endogenous latent variable η ; Γ is a matrix of structural coefficients, which represents the effect of the exogenous latent variable ξ on the endogenous latent variable η ; Difference matrix.

$$\eta = B\eta + \Gamma\xi + \zeta$$

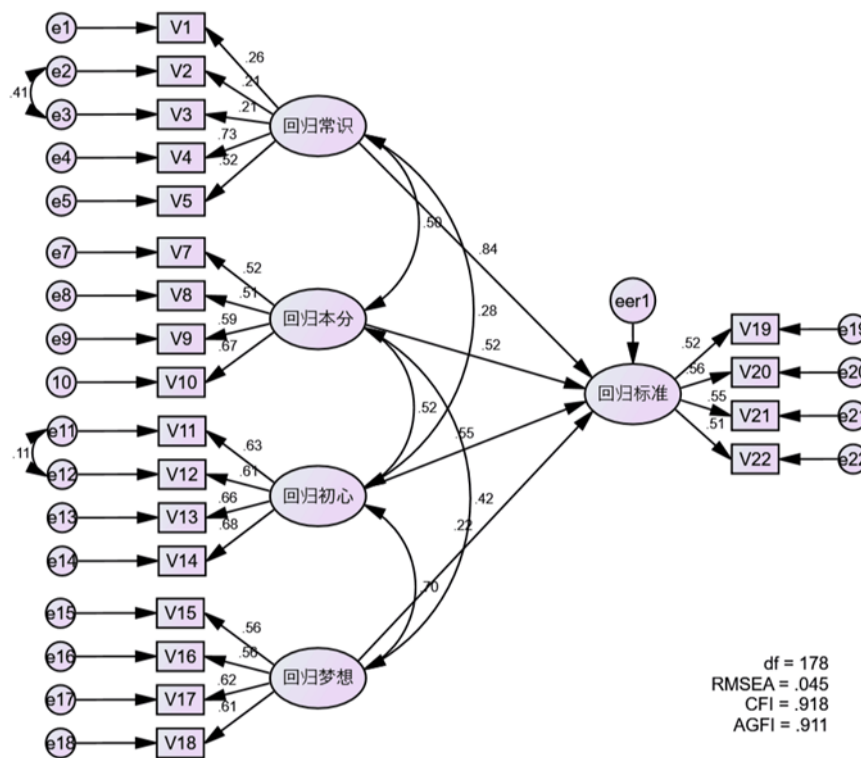


Fig 0-1. The exogenous latent variables of the "four regressions" and the endogenous latent variables that affect the regression of students

Table 0-1. Observed variables corresponding to each latent variable

Latent variable	Observation variable
Return to common sense	Requirements for your own achievements (V1)
	Extracurricular reading (V2)
	Reading breadth (V3)
	Interest in professional course learning (V4)
	Willingness to participate in research/disciplinary competition (V5)
	Academic burden (V6)
Return to the point	Teacher's response to student questions outside the classroom (V7)
	The spirit of the teacher's class (V8)
	Whether teaching combines theory with practice (V9)
	The teacher pays attention to guiding students in the classroom (V10)
Return to the beginning	University culture atmosphere (V11)
	Optional curriculum (V12)
	The Influence of Ideological and Political Education on Personality Molding and the Formation of Three Views (V13)
	The Influence of Ideological and Political Education on Cognitive Understanding of Socialism (V14)
Return to dreams	Teaching equipment (V15)
	Library Facilities (V16)
	School-enterprise alliance (V17)
	Learning Resources (V18)
Regression standard	University overall harvest (V19)
	Professional course mastery (V20)
	Current attention (V21)
	Whether the target is clear (V22)

The model path coefficients are significant ($P < 0.05$). From the results of the correlation fitting index evaluation, the mean squared and square root RMSEA are $0.045 < 0.08$; the CFI of the degree of fitness is $0.918 > 0.9$. The adjusted fitness index AGFI is $0.911 > 0.9$, the indicators have reached the acceptable range, and the model fits well, and the assumption is established.

In the influence of exogenous latent variables on endogenous latent variables, the path coefficient of “return to common sense” is the largest, 0.84; the path coefficient of “return to dream” is small, only 0.22. Explain that “return to common sense” can have a large positive impact on regression criteria. In the correlation between exogenous latent variables, the correlation coefficient between “returning common sense” and “returning to dream” is relatively high, 0.7, and the two have obvious joint actions, which can be jointly constructed; “returning common sense” is related to “returning the score” The coefficient is second, 0.58, that is, attention should be paid to the interaction between students and teachers.

2.2 Student Portrait

The current heterogeneity of college students is strong. Scientifically summarizing its typical characteristics helps quickly and comprehensively and accurately recognize college students and promotes the precise implementation of the “four regressions” of higher education. In order to construct a representative student portrait, this paper converts the numerical data into discrete values from 1 to 5, achieves dimensionality reduction by principal component analysis to avoid multi-collinearity, and weights the cluster distance with the principal component score as the weight. Clustering.

Table 0-2.2 distance weight analysis table of principal components

ingredient	Extracting the sum of squared loads		
	Total	Percentage of variance	Cumulative %
1	5.023	22.833	22.833
2	1.830	8.316	31.149
3	1.744	7.926	39.075
4	1.356	6.165	45.240
5	1.115	5.069	50.310
6	1.047	4.759	55.068
7	.882	4.009	59.077
8	.811	3.685	62.763
9	.773	3.516	66.278
10	.765	3.477	69.755
11	.742	3.373	73.128
12	.687	3.124	76.252
13	.654	2.972	79.223
14	.627	2.852	82.075
15	.594	2.702	84.777
16	.576	2.617	87.393
17	.547	2.487	89.880
18	.499	2.268	92.148
19	.465	2.112	94.260
20	.447	2.033	96.293
21	.419	1.906	98.199
22	.396	1.801	100.000

It is known from Table 2 that the variance contribution rate of the first 16 principal components is 87%, which is enough to represent the most of the sample information. The 16 principal components are recalculated to

calculate the principal component scores of the sample, and the weighted principal component distance is defined as the weight. The K-means method is used for clustering. Let $F_1, F_2, \dots, F_m (m \leq p)$ be the principal component extracted from the p-dimensional index vector $X = (X_1, X_2, \dots, X_p)^T$, and $\alpha_i (i = 1, 2, \dots, p)$ is the variance contribution rate of the main component F_k , Let $\beta_k = \alpha_k / \sum_{i=1}^p \alpha_i (i = 1, 2, \dots, p)$ be the main component F_k distance weight. Define the weighted principal component distance between samples I, j as:

$$d_{ij}(q) = \left[\sum_{k=1}^m (\beta_k (F_{ik} - F_{jk}))^q \right]^{1/q}$$

The distance weights of the 16 principal components are as shown in Table 2, which eliminates the collinear overlapping information of the original indicators, and reflects the difference in the content of the primary components including the original indicators. The clustering effect is better.

Table 2-3. distance weight analysis table of principal components

Principal component 1	0.228	Principal component 9	0.035
Principal component 2	0.083	Principal component 10	0.035
Principal component 3	0.079	Principal component 11	0.034
Principal component 4	0.062	Principal component 12	0.031
Principal component 5	0.051	Principal component 13	0.030
Principal component 6	0.048	Principal component 14	0.029
Principal component 7	0.040	Principal component 15	0.027
Principal component 8	0.037	Principal component 16	0.026

In order to better summarize the characteristics of each group, this paper sets the number of clusters to 3 and uses the corresponding analysis to visually show the tendency of the three groups on some observed variables on the double projection map to find the clusters with internal similarity. The students population of the characteristics, the corresponding analysis results are shown in Table 2.

Table 0-4. Summary table of characteristics of the three types of student groups

Category	A	B	C
Characteristic			
Gender orientation	Girl	Boy	No inclination
School level	Independent Institute/ General undergraduate	Key university	Independent Institute
Evaluation of the teacher	High	medium	Low/lower
Learning burden	Large/medium	little/high	Medium/smaller
Expertise	Lower/medium	High/higher	Lower/medium
Mastery	Less correspond	correspond	Much correspond

According to the portraits, Class A tends to be female, mostly from independent colleges or general undergraduates. The comprehensive evaluation of teachers is high, the learning burden is medium or large, but the mastery of professional knowledge is at a low level, lacking clear planning and execution. Class B is prone to boys, mostly from key universities. The comprehensive evaluation of teachers is medium, the distribution of learning burden is polarized, the mastery of professional knowledge is high, and it is very planned and can be

implemented hard. Obvious tendency, mostly from independent colleges, the evaluation of teachers is low, the learning burden is medium or small, the mastery of professional knowledge is medium or low, and there is certain planning and implementation.

3 Results and analysis

In order to explore the influencing factors, this paper establishes a regression analysis based on LASSO logistic, avoiding the problem of more independent variables and discrete values, and uses LASSO regression to constrain the linear model complexity by λ . In contrast, class B is the student who meets the regression criteria. The assigned value is 1; the remaining students are deemed to have not reached the regression criteria, and the assignment value is 0. Therefore, the student category is regarded as the two-category variable and is used as the dependent variable. The observed variables of the "four regressions" are used as independent variables to examine the observed variables. The extent to which students have an impact on the regression criteria.

The post-constrained loss function using λ versus linear model can be expressed as follows:

$$J(\theta) = \frac{1}{2m} \sum_{i=1}^m (h_{\theta}(x^{(i)}) - y^{(i)})^2 + \lambda \sum_{j=1}^n |\theta_j|$$

$$\min J(\theta_0, \theta_1, \theta_2, \dots, \theta_n)$$

The model is fitted using the G language glmnet package. The fitting parameters of each model are shown in Table 3-1. Each row represents a model with a specific lambda value, Df is the degree of freedom, and %Dev represents the proportion of the residual explained by the model. In the model of the model, R² of the model fit is between 0 and 1. The closer to 1, the better the model is. Lambda is the corresponding lambda value of each model.

Table 3-1. Model fitting parameters table

	Df	%Dev	λ
1	0	6.35E-15	2.04E-01
2	5	1.88E-01	1.39E-01
3	6	3.49E-01	9.46E-02
4	9	4.70E-01	6.45E-02
5	13	6.39E-01	2.99E-02
6	15	7.09E-01	2.04E-02
7	18	7.66E-01	1.39E-02
8	19	8.49E-01	6.45E-03
9	19	9.01E-01	2.99E-03
10	21	9.51E-01	9.46E-04
11	21	9.93E-01	9.46E-05
12	22	9.98E-01	2.04E-05

As shown in Table 3-1, as λ becomes smaller, more and more independent variables participate in the model fitting, and %Dev is also getting larger and larger, but it is impossible to determine the exact value of λ taking 9 to 12 lines. To further determine the value. In this paper, we use the model evaluation index AUC (Area under curve) for the two-category model to avoid converting the prediction probability into a category, using cross-validation to output the value of the model AUC under different λ , and using the R language to output the best value of λ . 0.00195, output LASSO-based logistic regression model under this parameter value, the coefficient is shown in Table 3-2.

Table3-2. Regression model coefficient table

Variable	coefficient	Variable	coefficient
C	-10.685	V12	1.883
V1	-2.881	V13	1.663
V2	-1.674	V14	1.610
V3	-2.603	V15	0.950
V4	.	V16	0.847
V5	-0.571	V17	1.256
V6	-1.521	V18	0.625
V7	-0.938	V19	0.311
V8	-0.879	V20	0.383
V9	-0.249	V21	0.338
V10	0.053	V22	-0.070
V11	1.821		

$$p = P(y = 1|x) = \frac{e^{\theta_i x_i + C}}{1 + e^{\theta_i x_i + C}}, \quad i \in E$$

Among them:

$$C = -10.685, \theta_1 = -2.881, \theta_2 = -1.674, \theta_3 = -2.603, \theta_4 = 0, \theta_5 = -0.571, \\ \theta_6 = -1.521, \theta_7 = -0.938, \theta_8 = -0.879, \theta_9 = -0.249, \theta_{10} = 0.053, \\ \theta_{11} = 1.821, \theta_{12} = 1.883, \theta_{13} = 1.663, \theta_{14} = 1.610, \theta_{15} = 0.950, \\ \theta_{16} = 0.847, \theta_{17} = 1.256, \theta_{18} = 0.625, \theta_{19} = 0.311, \theta_{20} = 0.383, \\ \theta_{21} = 0.338, \theta_{22} = -0.070$$

The AUC parameter estimation and confidence interval for this model are shown in Table 3-3. The AUC is approximately 1, and the model fit is very effective.

Table 3-3. AUC confidence intervals

Asymptotic 95% confidence interval		
Lower limit parameter estimation upper limit	Lower limit parameter estimation upper limit	Lower limit parameter estimation upper limit
0.993	0.994	0.998

It can be known from the model coefficients that the factors with strong influence are V1, V2, V3, V6 belonging to "return to common sense," and V11, V12, V13, V14 belonging to "return to the initial heart," that is, defining the regression criteria. After the students, the students' requirements for their own achievements, as well as the amount of reading, the breadth of reading and the burden of learning, have the strongest impact on the students' return. In addition, the four factors of "returning to the score" have a strong influence on whether students can return.

4 Conclusions and Recommendations

4.1 Guide students to return to common sense

Guiding students to return to common sense should be improved from the following aspects: Firstly, enhance the awareness of crisis: colleges and universities should convey the importance of learning and the practicality of

professional knowledge in the future, and establish a fair, reasonable and effective elimination mechanism. Students' crisis awareness enables students to improve their own performance requirements and ease the phenomenon of "zero stress"; secondly, to strengthen the curriculum challenge: the number of courses focusing on cultivating low-level cognitive ability is much more focused on improving high-level cognitive ability. The challenging courses and courses rarely involve challenging topics. It is the main manifestation of the low challenge of university courses in China. For this reason, colleges should adopt small classes to emphasize the cultivation of innovative ability, courage and challenge spirit. Thirdly, organize reading activities and create good reading atmosphere: create a good reading atmosphere by holding topical sharing sessions, topic essays and other reading activities, so that students can broaden their reading breadth and depth in the process of participating in activities; Fourthly, help students to enhance their research intentions and enhance their innovative practice ability: strengthen Student and teacher communication mechanism, allowing students to have channels and the opportunity to find partners and mentors, but also to ensure that mentors can find which is committed to research students, while focusing on innovation and the cultivation of students' self.

4.2 Guide teachers to return to the point

To guide teachers to return to their duty, we should firstly guide teachers to pay attention to theory and practice in teaching. For example, teachers should make full use of the Internet to collect and update the latest information resources before class, and combine theoretical knowledge with real life with specific examples and cases; The teacher should appropriately arrange extracurricular practice, for example, analyze the content of the recent use of certain events. Secondly, guide the teacher to enhance the mental outlook. Teachers should enhance the mental outlook from both internal and external aspects. The external includes the teacher's words and deeds, instruments Intrinsic mainly refers to the teacher's moral character, spiritual realm, and academic ability. The teacher's moral character is extravagant into daily behaviors, which can be visualized and imitated. Therefore, teachers should strictly follow themselves. The moral character is examined many times, and the moral defects are improved by the principle of change, no increase, and at the same time, in addition to work, we must constantly learn and improve our spiritual realm and knowledge. Finally, we should improve the communication between teachers and students after class. Exchange with each other. In order to promote the exchange of teachers and students, the school must pass relevant courses and organize studies. At the same time, the teaching and psychological lectures convey the theory of after-school communication to teachers and students, so that both parties can establish the awareness of active communication. In addition, it is necessary to build communication platforms such as WeChat group and QQ group to avoid the phenomenon that students have no way to ask for advice after class.

4.3 Helping colleges return to their hearts

Helping colleges and universities return to the beginning should improve from the following four aspects: Firstly, build a new academic evaluation system: Colleges and universities should build a balanced and high-standard academic evaluation system that pays attention to students' learning process and results, and raises the minimum compliance index. Classmates shall be punished for punishment and repetition; Secondly, create a good university culture atmosphere: ① Improve the rules and regulations. Establish reasonable and effective rewards and punishments and incentives, reward and punish according to the judgment of students' moral character; ② build a warm and harmonious material environment; ③ develop a rich campus cultural activities; ④ is to establish a noble core spirit of the campus; Thirdly, expand the scope of students' self-selected courses: through the sharing of resources such as teacher resources, quality curriculum resources and online curriculum resources, to open the boundaries of majors, minors, and double degrees, and improve students' self-selection The fourth is to strengthen the ideological and political education reform and innovation: ① set up an excellent group of outstanding ideological and political education teachers; ② innovative ideological and political education forms, enrich the content of ideological and political education.

4.4 *Helping education return to dreams*

Helping education return to the dream. First of all, we must improve reading interest and build a demand-oriented library: the education department can invite relevant experts to open general courses such as book introduction, reading introduction, and masterpiece reading in the form of online courses, as part of the elective courses of various universities. At the same time, increase the investment in college libraries, such as based on students' digital reading habits, promote the ability of mobile reading services in colleges and universities to meet the needs of college students' personalized digital reading. Secondly, use teaching equipment to stimulate interest and improve efficiency: rational use of multimedia Teaching equipment can stimulate interest in learning and keep it through the teaching activities. Therefore, for the general teaching equipment with long-term use significance, the colleges and universities will be updated in time to improve the learning experience and thus improve the learning efficiency. For the specificity, Update and replace fast equipment, such as: all kinds of experimental equipment, adopt the mode of joint laboratories of various universities, let high-end equipment enter the campus. Finally, we should conduct joint training of schools and enterprises to understand the needs of social talents: local education departments should serve as a bridge, depending on the local area. The needs of sub-enterprises are in contact with different levels of colleges and universities. According to the requirements put forward by enterprises, the school aims to cultivate professional talents for enterprises, adhering to the tenet of "business needs, college training," according to the needs of different levels of talents to set up different levels of courses.

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Notes

♠ Chen Baosheng: "Adhere to the basics of promoting the return to build a first-class undergraduate education with Chinese characteristics and world-class level in the new era of national higher education undergraduate education work conference," June 22, 2018, "Chinese Education newspaper of the first.

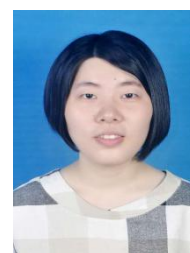
http://www.jyb.cn/zgjyb/201806/t20180622_1121820.html

♣ Wu Yan: "Comprehensively grasping the situation, comprehensively revitalizing the undergraduate, fully playing the role of the teaching and learning committee," November 1, 2018,

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