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Study of Soft Skills that Students Need for Self-Development at Suvarnabhumi Institute of Technology

Suwit Salamteh¹, Naline Sutsavade², Sumitra Yapradit³

¹ Faculty of Education and Liberal Arts, Suvarnabhumi Institute of Technology

² Graduate School of Education, Siam University

³ Faculty of Education and Liberal Arts, Suvarnabhumi Institute of Technology

Correspondence: Suwit Salamteh. E-mail: Suwit_sal_kbu@hotmail.com

Abstract

This research objective was 1. Study the Soft Skills that students need for self-development at Suvarnabhumi Institute of Technology.; 2. Compare opinions of Soft Skills that students need for self-development at Suvarnabhumi Institute of Technology by faculty and year. The population studied was students from 4 faculties, totaling 393 people. The sample size determination by Krejci and Morgan, the sample size was 220 people. and random sampling. The instrument used was a questionnaire. The statistics used were frequency, percentage, Mean, standard deviation, one-way analysis of variance (One-way ANOVA) and content analysis. The research results found that: 1. Soft skills that students need for self-development were overall at a high level ($\bar{x} = 4.41$, $SD = 0.49$), ranked as follows: teamwork skills ($\bar{x} = 4.47$, $SD = 0.56$), life skills ($\bar{x} = 4.46$, $SD = 0.56$) and communication skills ($\bar{x} = 4.43$, $SD = 0.53$); 2. Comparison of students' opinions on Soft Skills that they need for overall self-development, classified by faculty, found that overall and in each aspect, students from the 4 faculties had different needs in 8 aspects at a statistical significance level of .05. And classified by year, found that overall and in each aspect, students from the 4-year levels had different needs in 6 aspects at a statistical significance level of .05.

Keywords: Soft Skills, Students, Self-Development

1. Introduction

In the midst of rapid global technological advancements, often referred to as the digital era, increasing emphasis is being placed on technology systems and innovations. This transition towards a digital society has significantly influenced the adaptation of the Thai educational system at all levels. There is a need to shift paradigms and adapt teaching and learning methods to align with the changing social context. Additionally, supplementary activities are needed to enhance students' learning, aiming to equip them with comprehensive knowledge and skills, including core academic and professional skills (Hard Skills) as well as social skills (Soft Skills) that align with the demands of the 21st century. In line with the government's policy to develop Thailand into a stable, prosperous, and sustainable country following the Education 4.0 framework, the focus of educational management has shifted towards preparing students for the digital age. This entails empowering them to apply professional knowledge

(Hard Skills) in their careers, fostering creativity, and developing innovations that meet the demands of professional and business sectors. Social skills (Soft Skills) play a supportive role in enhancing the effectiveness and efficiency of core skills (Hard Skills). Thus, educational administrators, particularly at the higher education level, must prioritize the development of essential skills for students, encompassing both core skills (Hard Skills) and social skills (Soft Skills). This should be integrated into the curriculum design process, teaching and learning management, content in various courses, extracurricular activities, student training and development, and the creation of an appropriate learning environment to provide a well-rounded educational experience. This approach aims to prepare students to become high-quality human resources capable of contributing to the country's development goals.

According to the National Education Act B.E. 2542 (1999), Section 22 emphasizes that education management must be based on the principle that every learner has the potential to learn and develop themselves. Learners are considered the most important aspect of the educational process. Therefore, the learning environment, instructional media, and assessment must be tailored to reflect real-world conditions. Effective implementation requires the collaboration of teachers, personnel, and stakeholders to enhance the quality of learners. Students, as learners, need to be equipped with additional skills and abilities beyond core academic or professional skills (Hard Skills), as these alone may not be sufficient for the digital society. There is a need to promote social skills (Soft Skills), which are equally important and serve as complementary skills to enhance the effectiveness of core skills (Hard Skills). Key Soft Skills necessary for the workplace include communication skills, teamwork, conflict management, and decision-making skills. Educational studies have shown that individuals with well-developed social skills (Soft Skills) tend to advance in their careers faster than those possessing only core skills (Hard Skills). This is because individuals with strong social skills (Soft Skills) can easily adapt and collaborate with others, as well as maintain a balanced development of both Hard Skills and Soft Skills.

Given the significance of education management as highlighted in the National Education Act B.E. 2542 (amended in 2002) and the rapidly changing societal context, educational administrators and stakeholders play a critical role in ensuring the systematic and continuous development of both core skills (Hard Skills) and social skills (Soft Skills) throughout students' educational journey. In particular, the development of Soft Skills is crucial for students to learn and apply these skills effectively in their professional lives, adapting to the digital era where social contexts and other factors are constantly evolving. The need to develop social skills (Soft Skills) for students aligns with the National Education Plan B.E. 2560-2579 (2017-2036) by the Office of the Education Council, Ministry of Education, which addresses the impact of the digital revolution on the nation's educational development. It emphasizes the necessity of 21st-century skills, including the 3Rs+8Cs framework, as outlined in the 20-year National Strategy. The National Education Plan B.E. 2560-2579 (2017-2036) focuses on educational management for national security, aiming to produce and develop human resources, research, and innovation to enhance the country's competitiveness. In light of the significance of national education policies and the 20-year National Strategy, the preparation of students for digital-era competition is a priority, especially in higher education institutions. Their critical role is to produce graduates with academic knowledge, professional competence, and essential social skills (Soft Skills) that will enable them to collaborate effectively, respond to societal changes, and develop a positive attitude and values. This is necessary for managing and controlling tasks that are increasingly intertwined with robots, technology systems, and Big Data in organizational operations.

The researcher recognizes the importance of preparing students with Soft Skills, particularly within higher education institutions. Strategic planning is required in curriculum design, teaching processes, and extracurricular activities that will lead to the systematic development and enhancement of essential Soft Skills. This research aims to gather data on students' needs for Soft Skills development, which will provide a structured approach to developing these skills effectively, ensuring students are well-prepared for the future workforce with the necessary knowledge, skills, and Soft Skills that meet the demands of employers. The research findings will offer valuable insights to support the systematic development of essential Soft Skills in students, enhancing the efficiency and effectiveness of student development initiatives.

2. Research Objectives

1. To investigate the Soft Skills that students at Suvarnabhumi Institute of Technology desire for their self-development.
2. To compare students' opinions on the desired Soft Skills for self-development at Suvarnabhumi Institute of Technology, categorized by faculty and year of study.

3. Research Methodology

This study employs a quantitative research methodology, with the following details:

3.1. Content Scope

The research focuses on theories and concepts from scholars who have studied and presented Soft Skills related to student development. The study examines the following 8 Soft Skills:

1. **Communication Skills**
2. **Analytical and Creative Thinking Skills**
3. **Problem-Solving and Decision-Making Skills**
4. **Teamwork Skills**
5. **Leadership Skills**
6. **Learning and Information Management Skills**
7. **Flexibility and Adaptability Skills**
8. **Life Skills**

3.2. Population Scope

The target population consists of students from Suvarnabhumi Institute of Technology across 4 faculties, totaling 393 students (as of January 15, 2024). The sample size was determined using Krejcie and Morgan's sample size formula (as cited in Laddawan Petchroj and colleagues, 2007), resulting in a sample of 220 students. A simple random sampling technique was employed.

3.3. Research Instruments

The research instrument was a questionnaire designed to assess the Soft Skills that students desire for self-development, divided into three sections:

- **Section 1:** General information about the respondents (check-list type), including faculty, year of study, and age.
- **Section 2:** Opinions on the desired Soft Skills for self-development, covering 8 skills:
 1. Communication Skills
 2. Analytical and Creative Thinking Skills
 3. Problem-Solving and Decision-Making Skills
 4. Teamwork Skills
 5. Leadership Skills
 6. Learning and Information Management Skills
 7. Flexibility and Adaptability Skills
 8. Life Skills

The assessment was based on a 5-point Likert scale as follows:

- **5:** Very high level of need for self-development
- **4:** High level of need for self-development
- **3:** Moderate level of need for self-development
- **2:** Low level of need for self-development
- **1:** Very low level of need for self-development
- **Section 3:** Open-ended questions for additional suggestions.

3.4. Instrument Development and Quality Assurance

The researcher conducted the development and quality assessment of the research instrument following these steps:

3.4.1. Review of Concepts, Theories, and Related Literature

The researcher reviewed relevant theories, literature, and prior research to define the scope and conceptual framework of the study. This informed the design of the research instrument, ensuring it aligns with the research objectives and comprehensively covers the targeted Soft Skills.

3.4.2. Questionnaire Development

The researcher created research questions based on the conceptual framework, focusing on the 8 Soft Skills desired by students for self-development. The questions were designed to align with the study's objectives.

3.4.3. Content Validity Assessment

The developed questionnaire was submitted to a panel of three experts with relevant qualifications and experience related to the research topic. The experts evaluated the content validity of the questionnaire. The Index of Item-Objective Congruence (IOC) was calculated to assess the alignment of each question with the research objectives. Items with an IOC score between 0.6 and 1.0 were selected for inclusion in the final instrument.

3.4.4. Pilot Testing for Reliability

The revised questionnaire, incorporating feedback from the experts, was then tested with a pilot group of 30 respondents. The reliability of the questionnaire was assessed using Cronbach's Alpha coefficient (Cronbach, 1990). Items were considered reliable if the Cronbach's Alpha coefficient was 0.70 or higher. The overall reliability of the complete questionnaire was found to be 0.97, indicating a high level of internal consistency.

3.4.5. Data Collection with Final Questionnaire

The finalized version of the questionnaire was administered to the sample group for data collection. This systematic process ensured the validity and reliability of the research instrument, enabling accurate and consistent measurement of the desired Soft Skills.

3.5. Data Analysis Methods and Statistical Techniques

The data analysis was conducted as follows:

Section 1: General Information of Respondents

- Analyzed using frequency distribution and percentage to summarize demographic data.

Section 2: Opinions on Soft Skills Desired by Students for Self-Development Across 8 Skills

1. Descriptive Statistics:

- Mean (M) and Standard Deviation (SD) were used to assess the overall level of demand for each Soft Skill.

2. Inferential Statistics:

- One-Way Analysis of Variance (One-way ANOVA) was used to compare the differences in students' opinions across faculties and academic years.
- If significant differences were found, Fisher's Least Significant Difference (LSD) test was used for post hoc comparisons.

Section 3: Open-Ended Suggestions

- Analyzed using content analysis to extract themes and insights from the qualitative data.

4. Research Findings

4.1. General Information

The majority of respondents were students from the Faculty of Education and Liberal Arts (85 students, 38.64%), followed by the Faculty of Engineering, Science, and Technology (60 students, 27.27%), and the Faculty of Public Administration (31 students, 14.09%). Most respondents were first-year students (125 students, 56.82%). In terms of age, the largest group was over 23 years old (130 students, 59.10%).

4.2. Levels of Demand for Soft Skills Among Students

4.2.1 Overall Demand for Soft Skills

The overall level of demand for Soft Skills was high, with a mean score of **4.41** and SD of **0.49**. The top three skills in demand were:

- Teamwork Skills (M = 4.47, SD = 0.56)
- Life Skills (M = 4.46, SD = 0.56)
- Communication Skills (M = 4.43, SD = 0.53)

4.2.2 Communication Skills

The overall demand for Communication Skills was high (M = 4.43, SD = 0.53). The highest-rated item was:

- Building positive relationships between sender and receiver (M = 4.49, SD = 0.62)
- The lowest-rated item was:
- Public speaking (M = 4.33, SD = 0.75)

4.2.3 Analytical and Creative Thinking Skills

The overall demand was high (M = 4.38, SD = 0.53). The highest-rated item was:

- Innovative perspectives in work and life (M = 4.45, SD = 0.62)
- The lowest-rated item was:
- Complex reasoning in analyzing factors systematically (M = 4.25, SD = 0.71)

4.2.4 Problem-Solving and Decision-Making Skills

The overall demand was high (M = 4.39, SD = 0.53). The highest-rated item was:

- Adaptability to change (M = 4.48, SD = 0.64)
- The lowest-rated item was:
- Decision-making under constraints (M = 4.32, SD = 0.64)

4.2.5 Teamwork Skills

The overall demand was high (M = 4.47, SD = 0.56). The highest-rated item was:

- Acceptance of individual differences (M = 4.50, SD = 0.67)
- The lowest-rated item was:
- Being a good leader and follower (M = 4.44, SD = 0.66)

4.2.6 Leadership Skills

The overall demand was high (M = 4.34, SD = 0.63). The highest-rated item was:

- Influencing and motivating followers (M = 4.39, SD = 0.70)
- The lowest-rated item was:

- Ability to manage people (M = 4.31, SD = 0.75)

4.2.7 Learning and Information Management Skills

The overall demand was high (M = 4.36, SD = 0.60). The highest-rated item was:

- Effective data management for relevant tasks (M = 4.39, SD = 0.67)
- The lowest-rated item was:
- Analyzing data with in-depth knowledge (M = 4.31, SD = 0.73)

4.2.8 Flexibility and Adaptability Skills

The overall demand was high (M = 4.43, SD = 0.58). The highest-rated item was:

- Positive attitude towards change (M = 4.48, SD = 0.64)
- The lowest-rated item was:
- Prioritizing tasks effectively (M = 4.40, SD = 0.70)

4.2.9 Life Skills

The overall demand was high (M = 4.46, SD = 0.56). The highest-rated item was:

- Living a happy life according to social status (M = 4.52, SD = 0.62)
- The lowest-rated item was:
- Work-life balance (M = 4.41, SD = 0.63)

4.3. Comparison of Students' Opinions on Soft Skills by Faculty and Year of Study

4.3.1 Comparison by Faculty

- The demand for all Soft Skills differed significantly across faculties, including Communication Skills, Analytical and Creative Thinking Skills, Problem-Solving and Decision-Making Skills, Teamwork Skills, Leadership Skills, Learning and Information Management Skills, Flexibility and Adaptability Skills, and Life Skills, with a significance level of **0.05**.

4.3.2 Comparison by Year of Study

- The demand for six Soft Skills differed significantly by year of study: Communication Skills, Analytical and Creative Thinking Skills, Problem-Solving and Decision-Making Skills, Leadership Skills, Learning and Information Management Skills, and Life Skills, with a significance level of **0.05**.

5. Conclusion and Discussion

Based on the findings of this research on Soft Skills desired by students for self-development at Suvarnabhumi Institute of Technology, key points for discussion are highlighted according to the research objectives as follows:

5.1. Overall Level of Demand for Soft Skills

The results indicate that the overall demand for Soft Skills across all 8 areas was high. The top three Soft Skills with the highest mean scores were:

1. Teamwork Skills
2. Life Skills
3. Communication Skills

This suggests that students prioritize the need to develop teamwork skills, which are essential for their future careers. A closer examination of specific items within this skill area revealed that students highly valued acceptance of individual differences, followed by working effectively in a team to achieve common goals, and fostering good interpersonal relationships. These findings align with the framework of 21st-century social skills, which emphasize self-responsibility, flexibility, empathy, leadership, **and collaboration**, as outlined by Thissana Khammanee (2014) and further supported by Phinyou Wongthong and Wanchai Noiwan (2021), who highlighted the importance of collaboration and respect in teamwork.

5.2. Demand for Life Skills

The demand for Life Skills ranked second. Students expressed the highest need for developing the ability to live happily according to their social status, followed by self-acceptance and ongoing skill improvement. This reflects the increasing societal pressures and technological advancements, which require students to learn adaptive life skills. The findings are consistent with the work of Siriorn Noppakij (2018), who emphasized the significance of life skills as the ability to adapt and make appropriate decisions in daily life challenges. The Basic Education Standards Office (2010) also defined life skills as the capacity to live harmoniously in society, effectively manage problems, and maintain physical and mental well-being.

5.3. Demand for Communication Skills

Communication Skills ranked third in overall demand. The most sought-after sub-skill was the ability to build positive relationships between the sender and receiver, followed by being a good speaker and listener, and effective listening skills. This highlights the critical role of communication in student development, as effective communication fosters mutual understanding and motivation. This finding aligns with the research of Phinyou Wongthong and Wanchai Noiwan (2021), who noted that communication skills extend beyond language proficiency to include effective listening, understanding, and the use of diverse media and technology. Effective communication is essential for expressing ideas, resolving conflicts, and building social interactions, which are crucial in the 21st-century workplace.

5.4. Comparison of Students' Opinions on Soft Skills by Faculty and Year of Study

The analysis showed that students' opinions on the demand for Soft Skills varied significantly across different faculties and academic years.

- **Comparison by Faculty:** Students from the Faculty of Engineering, Science, and Technology exhibited lower demand for Soft Skills compared to students from the Faculties of Business Administration, Public Administration, and Education. This may be attributed to the curriculum focus in engineering and science programs, which emphasizes analytical thinking, problem-solving, and information management skills. This aligns with the study by Nittaya Chantakoon (2018), which found that students' perceptions of skill needs differ based on the characteristics of their academic programs.
- **Comparison by Year of Study:** First-year students generally exhibited lower demand for Soft Skills compared to second- and third-year students, particularly in six areas: communication, analytical thinking, problem-solving, leadership, information management, and life skills. This may be due to the focus of first-year students on academic adjustment and adapting to university life, resulting in different priorities for skill development. The findings align with the research by Nittaya Chantakoon (2018), who reported that students in earlier years tend to focus more on core academic knowledge, while students in later years recognize the importance of developing additional Soft Skills for career readiness.

6. Recommendations

6.1. Strategic Planning for Student Development

Educational institutions and stakeholders should develop clear, structured plans for student development, tailored to the needs of students in different academic years and faculties. Although the overall demand for all 8 Soft Skills

was high, there were distinct differences based on the year of study and faculty. Therefore, development plans should be customized to address these differences to enhance the effectiveness of Soft Skills development in line with 21st-century skill requirements.

6.2. Capacity Building for Faculty and Staff

Institutions should support the professional development of faculty members and related personnel to enhance their capacity to facilitate Soft Skills development. This includes equipping educators with the necessary knowledge, skills, and positive attitudes towards student development. Faculty involvement is critical in implementing effective learning experiences, whether through curriculum-related courses, supplementary activities, or extracurricular programs. By fostering a collaborative environment for teaching and learning, institutions can ensure that the development of Soft Skills aligns with the needs of students and enhances overall educational outcomes. In conclusion, the findings of this study provide valuable insights for educational institutions aiming to enhance student readiness for the workforce. The systematic development of all 8 Soft Skills in accordance with the demands of the 21st century will help institutions achieve their student development goals effectively and concretely.

6.3. Recommendations for Future Research

1. Future studies should explore trends in enhancing 21st-century learning skills among graduate-level students. This could provide insights into the specific skills required for advanced academic and professional success, focusing on the unique needs of postgraduate learners.
2. Future research should investigate strategies for organizing supplementary activities that contribute to the development of student skills in alignment with employer demands. This would help in designing extracurricular programs that effectively bridge the gap between academic training and industry expectations, ensuring students are well-prepared for the workforce.

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References

- Bureau of Academic Affairs and Educational Standards, Office of the Basic Education Commission. (2010). *Guidelines for Organizing Student Development Activities According to the Core Curriculum B.E. 2551*. Bangkok: Cooperative Federation of Thai Agriculture.
- Cronbach, L. J. (1990). *Essentials of Psychological Testing* (5th ed.). New York: Harper Collins Publishers. (pp. 202-204).
- Kanda Chantriyam. (2022). Essential Skills for Youth Entering the 21st-Century Job Market: A Case Study in Southern Thailand. *Yala Rajabhat University Journal*, 17(3), pp. 127-137.
- Laddawan Petchroj & Atchara Chamni Prasat. (2007). *Research Methodology (Revised Edition)*. Bangkok: Pim Dee Printing
- Ministry of Education. (1999). *National Education Act B.E. 2542*. Bangkok.
- Ministry of Education. (2002). *National Education Act B.E. 2542 and Amendments (Second Edition) B.E. 2545*. Bangkok: The Printing Office of Parcel and Logistics Organization.
- Ministry of Education, Office of the Education Council. (2017). *National Education Plan B.E. 2560-2579*. Bangkok: Prikwan Graphic.
- Nittaya Chantakoon. (2018). *Factors Influencing University Student Skills for Enhancing Student Quality in the 21st Century*. Research Report, Mahasarakham Rajabhat University.

- Phinyou Wongthong & Wanchai Noiwan. (2021). Indicators of Essential 4Cs Skills for 21st-Century Learners: A Literature Review. *Thonburi University Journal of Humanities and Social Sciences*, 15(2), May-August 2021, pp. 176-186.
- Siriorn Noppakij. (2018). Organizing Activities for Developing Life Skills in 21st-Century Learners. *Journal of Curriculum Research and Development*, 8(1), January-June 2018, pp. 53-66.
- Thissana Khammanee. (2014). Reviving Teaching Towards New Century Classrooms. In *Proceedings of the Academic Conference on Learning Innovation... Toward Thailand's Transformation*. Retrieved December 12, 2023, from <https://goo.gl/UYv2t6>