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"Primary School Curriculum is like a Matryoshka": Teacher Candidates' Perceptions of the Curriculum

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Abstract

The curriculum is an important guide for a country's education system. It covers the objectives, teaching and learning process, content, and evaluation process. The primary school curriculum was updated in Turkey in 2018 and made simpler compared to the 2006 curriculum. The purpose of this research was to explore the perceptions of primary school teacher candidates about the primary school curriculum through conceptual metaphor theory. For this purpose, teacher candidates completed the prompt "Primary school curriculum is like/similar to .... Because ………" The data in this qualitative research was analyzed using content analysis techniques. The characteristics of the curriculum guided the analysis process. According to the findings, eight themes were identified: Primary school curriculum as being systematic, being the foundation of education, being a guide, being individual foundations, being purpose-oriented, being applicable, being the foundation of life, and others. The findings indicate that the pre-service teachers mostly produced positive metaphors for the primary school curriculum. According to the results of the research, it was determined that the pre-service teachers emphasized the basic features of the program and their level of knowledge was high. It is expected that the research will contribute to primary school teacher education.

Keywords: Curriculum, Perceptions, Pre-Service Teachers, Primary School Curriculum

1. Introduction

Education is a determinant phenomenon for the development of society, which maintains its importance today as it is in every period, and contributes to the self-realization of individuals. Education is given formally in schools. For this, states develop curriculum, implement it in the context of the characteristics that thought the citizens should have and the needs of the country, and make changes when necessary. In Turkey, a new curriculum has been developed to be implemented at all schools and classroom levels in 2018, and almost all curricula at all education levels have been renewed by the Ministry of National Education [MoNE]. In line with the opinions of a wide range of participants and experts, the curriculum was simplified compared to the 2005 curriculum and

started to be implemented in schools (Gültekin, 2020). Values and competencies were added and the characteristics of the type of person that the curriculum aims to raise are stated.

Evaluation of curriculum is important because the evaluation results serve the purpose of "curriculum design, adaptation, revision and informing the management levels" (Kara & Akdağ, 2017, p. 470). According to Ertürk (1993), evaluation in curriculum development is "the process of determining the degree of realization of educational goals as the final and complementary link of Yetişek [curriculum] development" (p. 107). According to Erden (1998), evaluation of curriculum is "the process of gathering information about the effectiveness of the curriculum using various measurement tools, comparing and interpreting the information obtained and making a decision about the effectiveness of the curriculum" (As cited in Demirtaş, 2017, p. .758). According to Oral and Süer (2017), in the evaluation process of curriculum development, qualitative and quantitative methods are used. After analyzing the data, the evaluation of the curriculum can be achieved (Baş, 2016). Thus, a decision can be made about the effectiveness of the curriculum.

With the 2018 primary school curriculum (PSC), the course catalogs of the institutions that educate future teachers were also renewed following the new curricula. Thus, it is aimed to prepare primary school teachers for the necessary competencies to implement the curriculum developed by the MoNE.

Compulsory and elective courses were included in the 2018 initial teacher education catalog to increase the knowledge and skills of teacher candidates who would teach in primary schools. For example, courses such as curriculum development in education and PSC serve to educate teacher candidates as curriculum literate. While the concept of the curriculum in the education system is understood in a broader sense, the PSC is used as an umbrella term and consists of lessons (Subjects) such as Turkish, Mathematics, and Social Studies taught at the primary level. It is important to explore the perceptions of the prospective teachers about the 2018 PSC because they will implement the curriculum when they start teaching in primary schools. Thus, it may be possible to develop and improve both the PSC and teacher education programs. In addition, it may become possible to train primary school teacher candidates more equipped, to increase the applicability of the curriculum, and to provide a more qualified education. In addition, the opportunity to evaluate the program is obtained by receiving feedback about the PSC. This, in turn, may enable existing programs to be eliminated and developed, and future programs to be prepared more qualified (Kara & Akdağ, 2017; Oliva, 2012).

1.1 Curriculum

A curriculum is defined as "a desirable goal or set of values that can be activated through a developmental process that results in experiences for students" (Wiles & Bondi, 2015, p. 5). Oliva (2012), on the other hand, defines curriculum as "a systematic lesson group or series of subjects required for graduation or certification in a major field of study" (p. 18). Gültekin (2017) considers the curriculum as a multidimensional concept that covers the experiences students have in and out of school. The curriculum is created by the state and it includes aims, objectives, content, method, and evaluation elements (Gültekin, 2017). The curriculum is prepared by the philosophy and policies of the state and is an official document reflecting this. The curriculum is at the theoretical level. When viewed from a broad perspective, the curriculum covers students' in-school and out-of-school lives and this takes place under the leadership of the school and the teacher (Ertürk, 1993). According to Ornsein and Hunkins (2018), our approach to the education program; reflect our perceptions, values, and knowledge. Therefore, the approach of the executive teachers of the program to the program is a special and subjective process.

1.2 Characteristics of the Curriculum

The curriculum must have certain features to serve its purposes and be successful in practice. Gültekin (2017) and Hesapçıoğlu (1994) explain these features as follows:

    1. Functionality: It is related to the fact that the curriculum works, in other words, it works in real life, and it responds to the needs of society and students.

    2. Flexibility: It is about adapting the content of the curriculum to the interests, needs, and conditions of the school environment according to the schools, teachers, and students.

3. Curriculum as a framework: The subjects in the curriculum are determined in general terms and do not contain details. Therefore, the curriculum is a framework for its practitioners.

4. Constancy and generality: This feature is related to the fact that certain important subjects and achievements should be covered in all schools in the country.

5. Practitioner-friendly: This feature is related to being able to guide teachers who are practitioners of the curriculum.

6. Scientificity: It is about the preparation of the curriculum following contemporary developments, that is, developments in education, learning-teaching methods, and techniques.

7. Purpose-oriented: This feature is related to the preparation of the curriculum by the purposes on which it is based. The curriculum should be prepared to achieve these goals.

8. Applicability: It is related to the functionality and flexibility of the curriculum. It's about being applicable in real school settings.

9. Affordability: This feature is related to the practical and economic nature of the curriculum. Its objectives, content, methods, and techniques should be applied in real schools and be affordable by the education system, schools, teachers, and students.

10. Compliance with the expectations of the state and society: The curriculum should be prepared by the expectations of the country and the society in which they are prepared, and the values and ideals of the society.

These features cover the curriculum development stages and these features are taken into account by the curriculum makers and implemented in schools after necessary pilot studies.

1.3 Primary School Curriculum

The PSC in Turkey covers the concepts that need to be developed in children between the ages of six and ten, the teaching-learning process, assessment methods and techniques, values, and skills. According to Korkmaz (2021), the PSC includes learning experiences for the psychological, emotional, social, moral, mental, and physical development of children through their capacities. It would not be wrong to conceptualize the PSC as the whole of the curriculum of the lessons taught in primary schools.

In this context, the PSC shows the lessons to be taken by the students at the primary school level (1-4 grades and 6-10 years old). The main lessons are Turkish, Mathematics, Social Studies, and Science. The others are English, Religious Culture and Morals, Visual Arts, Music, Physical Education and Play, Traffic Safety, and Human Rights, Citizenship and Democracy. In addition to these, a lesson titled Free Activities is taught in primary schools (Ministry of National Education [MoNE], 2018). Among these, only the Free Activities lesson does not have a formal curriculum and the teachers are expected to develop one based on the needs of the kids. The remaining lessons have a formal written curriculum.

The MoNE published a curriculum book for each lesson in the PSC in 2018. Accordingly, the curriculum book has two sections. In the first section, the goals/objectives, perspective, values, and competencies under the perspective title, assessment, and evaluation approach in the curriculum, and individual development titles are included, being the same in all curricula (MoNE, 2018). In this section, the curriculum is introduced in general. In the second part, there is various information about each lesson. For example, the following information is included in the Life Studies curriculum:

1. Specific learning objectives of the curriculum,
2. Skills in the curriculum,
3. Suggestions for the implementation of the curriculum,
4. Structure of the curriculum,
5. Criteria for textbooks, and
6. Grade-level objectives and explanations

Under these headings, the purpose of the PSC, the skills, the structure, information for the implementation of the curriculum, and short explanations of objectives are included to guide the teachers. Explanations of objectives indicate the limitations of the acquisition. In the sub-heading of the implementation, how the teachers can apply

the curriculum, the teaching and assessment-evaluation methods they can use, and the information reflecting the philosophy of the curriculum are provided. According to MoNE (2018), the purpose of the PSC is to enable students to have self-confidence and self-discipline. In addition, educating individuals who have verbal, numerical, and scientific reasoning skills used in daily life at a basic level is aimed to achieve through PSC. Moreover, raising individuals with social skills and aesthetic values is among the objectives of the PSC. The PSC is structured within the framework of these purposes.

Various studies in the literature reflect the views of teachers about the national curriculum. Yurdakul (2015) determined that teachers of primary schools thought of the curriculum as a theoretical and political text. In addition, the teachers thought of the curriculum as a guidebook. In some studies, teachers approach the curriculum positively (Erdamar & Akpunar, 2020), and teachers have a medium level of curriculum literacy (Kahramanoğlu, 2019; Demir, Yücesoy, & Serttaş, 2020). Steiner (2018) states that curriculum literacy is an important topic in teacher education and teacher education programs should improve the curriculum knowledge of teacher candidates by paying special attention to it.

1.4 Metaphors and Conceptual Metaphor Theory

Metaphors are frequently used in daily life. For example, a person who says "you are my sun" to a loved one does not mean the sun physically, but to express that the sun guides her/him and illuminates her/his path based on its characteristics. A person who says "mothers are angels" means that mothers are loving, caring, and good-hearted like angels. According to Saban (2004), metaphors structure our thinking about the forming and processing of facts and events. Metaphors guide and often control us. As powerful mental tools, we use metaphors to express our perceptions and experiences about an event, phenomenon, or concept. Conceptual metaphor theory informs us that metaphors play an important role in our lives and we use them to think and conceptualize the world. People express their perceptions, experiences, and beliefs through metaphors (Lakoff & Johnson, 1980). Metaphors used by individuals on various subjects are a powerful method for revealing their perceptions and experiences about that subject (Lakoff & Johnson, 2003). Metaphors "provide to see through something" (Akyol, 2021, p. 80). On the other hand, Moser (2000) inserts that metaphor analysis can be used to access hidden knowledge and to make sense of and explore experiences. Kasoutas and Malamitsa (2009) contend that since representations are briefer than exacting dialect, they offer assistance us express troublesome thoughts and things in genuine dialect and capture the complexity and differences of encounters and concepts.

1.5 Metaphors in Educational Research

Recently, metaphors are used extensively in educational research, mostly in qualitative research designs (Kılcan, 2021). Saban, Koçbekir, and Saban (2006) state that to explore teacher candidates' perceptions, beliefs, or views on related topics, metaphors can be used. There are metaphor studies on different subjects at various levels of education and with different participants in the literature. Academicians' perceptions of distance education (Alan, 2021), teachers' perceptions of lesson planning (Alarcón et al., 2019), teacher and school administrators' perceptions of values (Yazar, Özekinci & Lala (2017), pre-service teachers' perceptions of aesthetic (Özalp, 2018), distance education (Atik, 2020), Kemalism (Faiz & Karasu Avcı, 2019), mathematics (Kuzu, Kuzu, & Sıvacı, 2018), reading and writing concepts (Özenç & Özenç, 2018), refugee students (Burak & Amaç, 2021), the role of teachers (Alarcón, Díaz, & Vergara, 2015), school administrators and the education system (Kavracıyıcı, 2021) and universal values (Çelikkaya & Seyhan, 2017) were investigated via metaphors.

Metaphorical perceptions about the curriculum have been investigated in various ways. For example, Kliebard (1982) characterizes the curriculum with three metaphors: Production, travel, and growth. According to the production metaphor, the curriculum is considered a technical structure, and students are seen as raw materials to be transformed into a product. The travel metaphor, on the other hand, emphasizes the guided travel of the students in the company of an experienced guide (teacher). Curriculum as growth refers to a structure in which students grow and develop in the company of a smart and patient teacher, similar to the gardener responsible for growing a plant (Ibrahim, 2016). Çırak Kurt (2017) investigated the perceptions of teachers in secondary schools about curriculum and collected data from 73 teachers. The analysis showed that teachers' perceptions were generally

negative. Gültekin (2013) concluded in his research that teacher candidates produced 84 metaphors and the results showed that teacher candidates approached the curriculum positively. The studies conducted on pre-service teachers have determined that they do not have sufficient knowledge about the curriculum and generally have positive attitudes and perceptions of the curriculum.

1.6 Importance and Purpose of the Research

The faculty where the study was conducted has been educating primary school teachers since 1998. The teacher education course catalog was updated in cooperation with the Council of Higher Education and the purpose was to prepare teachers better for the needs of the country. In 2018, the primary school education catalog at the university was renewed following the national curriculum of the MoNE; accordingly some courses were added and some were removed. The new catalog has intense elective courses related to different subjects.

The literature lack studies about how primary school teacher candidates percept the PSC. Exploring the perceptions of teacher candidates, who are to implement the PSC in the future, may have two benefits: First, it can form a basis for the effective implementation of the PSC. Secondly, it can be ensured that feedback is received from the prospective teachers about the 2018 PSC 2018 and thus the curriculum can be evaluated by the prospective teachers as a stakeholder (Gültekin, 2013). In other words, data can be provided to the curriculum and education policymakers to evaluate the PSC in terms of its practitioners and to eliminate any perception differences. For these reasons, it is expected that this study will contribute to the literature on curriculum and curriculum development.

The purpose of this study was to explore the metaphoric perceptions of the 3rd and 4th-year primary school teacher candidates about the PSC. The following research questions guided this study:

      1. How do prospective primary school teachers perceive the primary school curriculum?

      2. Which metaphors do prospective primary school teachers explain the primary school curriculum?

2. Method

This research is qualitative based and contrary to quantitative methods, more holistic methods are used in qualitative research and focus on human nature and behaviors. This is a phenomenology (Merriam & Tisdell, 2016) study design and in phenomenological studies, participants who have experienced the phenomenon have the opportunity to reflect on the phenomenon as a data source (Yıldırım & Şimşek, 2011). In this study, the criterion sampling technique (Burak, 2022; Yazar & Keskin, 2020) was used. The criteria used to select participants were:

      •Being a student at the university,

      •Being a student of the primary school department,

      •Being a 3rd or 4th-year student and

      •Volunteering to participate in the study.

The reason for selecting participants from teacher candidates who are in their 3rd and 4th year in the teacher education program is that 3rd-year students all finished methods courses, learn more about PSC, and are ready for field placements in the following semester. The 4th year students are in their last semester and they will be graduating in a couple of months. It is thought that these two cohorts of students would give rich data for the research.

2.1 Participant Characteristics

A Google Forms link was prepared and shared in Whatsapp groups that were previously created for each class to facilitate communication with teacher candidates. Nine metaphors and explanations were removed from the data pool because they were the same. In addition, three metaphors were removed as the "because" part contained meaningless explanations. An example of the removed metaphor was: "Primary school curriculum is like lactose milk. Because it is the foundation of planning." As a result, 84 valid metaphors were added to the analysis pool. The study's participants were 23 males and 59 females. 44 of these participants were on the 3rd and 38 were 4th-year teacher candidates.

2.3 Procedures

The data were collected after obtaining the ethics committee approval from primary school teacher candidates who were 3rd and 4th-year students in Kilis 7 Aralık University Primary School Education Department and participated in the study voluntarily in the spring semester of the 2021-2022 academic year. To collect the data, a semi-structured form was prepared and asked an expert in the field of curriculum and instruction to reflect on it. After getting an expert opinion, the form was updated. There are two sections in the form. In the first part, information about the purpose, volunteerism, and information about the researchers [e.g. researchers' email and phone number.] were provided, and the year in the department and gender of the participants were asked to fill out. In the second section of the form, the prospective primary school teachers were asked to create a metaphor for PSC by completing the following prompt: "Primary school curriculum is like/similar to …………………….. Because……………………." The form has been transferred to Google Forms and as a result, an online form link was created. In the first part of Google Forms, information about the research (Purpose of the Researcher, Ethics committee permission, Researchers' contact information, etc.) was given and a button about voluntary participation in the study was added within this framework. Those who want to participate in the study voluntarily clicked the Yes button then the form was directed to the second part of the research. Those who did not want to participate in the study clicked the No button and thus the survey ended. 99 primary school teacher candidates clicked on the online survey link, four of them did not fill out the form because they did not want to participate in the research, and the other 95 students participated in the survey. Identity information of the participants or any data identifying them was not collected because of this during the analysis and reporting phase, the participants were coded as P-1, P-2, P-3, P-4, and such.

2.3 Analysis and Interpretation of Data

In this study, metaphors of pre-service primary school teachers about the PSC were investigated. The analysis and interpretation of the data were done in stages suggested by Saban, Koçbekir, and Saban (2006) as follows:
1. Naming: The first step was naming the metaphors. In this step, the metaphors were examined, sorted alphabetically, and listed in this stage.
2. Sorting (Sieving and refinement): The metaphors of the participants were read and the metaphors whose "because" part was not sufficiently explained or illogical/irrelevant/inappropriate were eliminated in this sorting stage. As a result of this process, 84 metaphors were qualified as valid and added to the analysis pool.
3. Category development: The metaphors were read again and examined in terms of their features and similarities. As a result of this examination, descriptive categories were created related to the conceptualization of the PSC by the participants, and the themes were created as a result of the categories.
4. Ensuring validity and reliability: Validity and reliability issues were checked in this stage by asking field experts to examine the categories and themes. In the fields of primary education, curriculum, and educational research shared their opinions about the categories and themes. Corrections were made based on the evaluations of the experts and then the themes were finalized.
5. Transferring data to computer environment: Data (Participants, metaphors, categories, and themes) were transferred to MS Excel and the percentages and frequencies were calculated.

2.4 Researcher

The researcher in this study graduated from a primary school teacher education program and has two-year teaching experience. She holds a Ph.D. in curriculum and instruction. She has been working as an academician for 19 years and teaches various courses related to the curriculum at the undergraduate and graduate levels. She is doing both qualitative and quantitative studies related to curriculum and instruction.

3. Results

This research was carried out to explore the perceptions of prospective primary school teachers about PSC using metaphors. The metaphors and their frequency are provided in Table 1.

Table 1: The Metaphors created by teacher candidates for PSC

No	Metaphor	f	No	Metaphor	f
1	Pomegranate	5	31	Frame	1
2	Tree root	4	32	Fruit garden	1
3	Water	4	33	Gasoline	1
4	Seed	3	34	Grape	1
5	Sun	3	35	Helical spring	1
6	Tree	3	36	Justice	1
7	Breath	2	37	Key	1
8	Chain	2	38	Lab	1
9	Compass	2	39	Ladder	1
10	Flower	2	40	Life	1
11	Game	2	41	Machine	1
12	Puzzle	2	42	Matryoshka	1
13	Sapling	2	43	Mirror	1
14	The bedrock of a building	2	44	Mother-father	1
15	Justice	1	45	Motorway	1
16	Adventure book	1	46	Nature	1
17	Atom	1	47	Navigation	1
18	Basis	1	48	Nothing	1
19	Blank paper	1	49	Orange	1
20	Building	1	50	Playground	1
21	Cabbage	1	51	Roof	1
22	Cake	1	52	School	1
23	Clearwater	1	53	Sculpture's clay	1
24	Construction project	1	54	Spiral system	1
25	Diamond	1	55	Stair step	1
26	Directory	1	56	Sunflower seed	1
27	Embroidery	1	57	Teacher	1
28	Flower garden	1	58	The bedrock of a house	1
29	Fork-spoon	1	59	Tree leaves	1
30	Foundation of construction	1	60	World	1

According to Table 1, the participants produced 60 different metaphors regarding the PSC. The participants mostly associated the PSC with the metaphors of pomegranate, tree root, water, seed, sun, and tree. The metaphors produced by at least two participants are as follows: Bedrock of a building, breath, chain, compass, flower, game, puzzle, and sapling. The remaining 46 metaphors were used once by the participants.

Eight themes were created for the participants' metaphors for PSC. While creating the themes, the characteristics of the curriculum listed by Gültekin (2017) and Hesapçıoğlu (1994) are used. These features are functionality, flexibility, framework, immutability, and generality, practitioner-friendliness, scientificness, purposefulness, applicability, conformity with the structure of the economy, compliance with the expectations of the state and society. The metaphors were grouped by these characteristics.

There are eight themes created based on the curriculum's characteristics as follows: PSC as being systematic f: 21, being the foundation of education f: 18, being a guide f: 13, individual foundations f: 9, purpose-oriented f: 7,

applicability f: 7, being the foundation of life f: 5 and others f: 4. 84 metaphors were identified in all themes. The number of metaphors in the themes of curriculum as being systematic (f: 22), being the foundation of education (f: 18), and being a guide (f: 12) is the highest. It is observed that the metaphors are generally positive. The themes created based on the findings are provided in Figure 1.
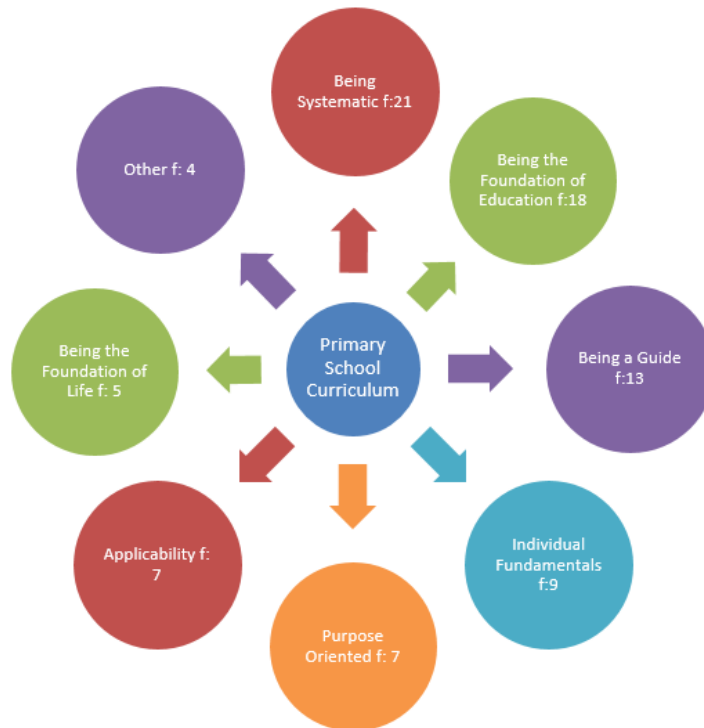

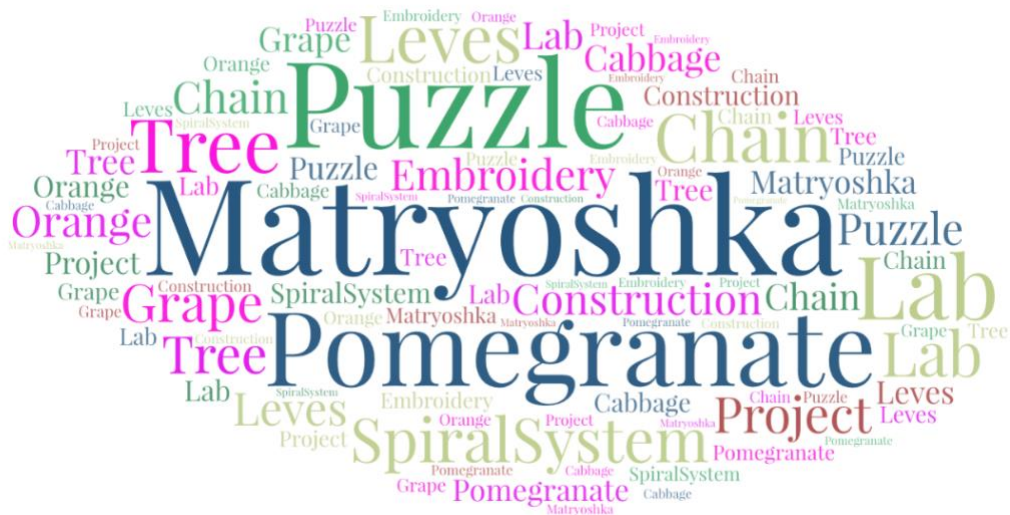Figure 1: Themes of Metaphors Created Based on the Characteristics of the PSC

Figure 2: Metaphors Related to PSC as Being Systematic

Figure 2 shows the metaphors under the theme of the PSC as being systematic. This theme has the most metaphors (f: 21). Accordingly, it is thought that pre-service teachers perceive the PSC as a systematically created complex structure. Among the metaphors identified in this theme; analogies such as pomegranate, spiral system, puzzle, and matryoshka draw attention. According to this theme, the pre-service teachers thought that the PSC had a

complex structure that was intertwined, that it consisted of interconnected systematic elements, and that it grew in a spiral way. The sample expressions of the participants regarding the metaphors for PSC as being systematic are given below:

> "The primary school curriculum is like a chain because the curriculum is made up of interconnected elements." (P-83)
>
> "The primary school curriculum is like a grape because it stands apart. But when it comes together it makes a whole." (P: 79)
>
> "Primary school curriculum is like a spiral system because the subjects are a continuation of each other in-depth" (P: 69)
>
> "The primary school curriculum is like a spiral arc because the primary school curriculum is both flexible and consists of subjects that are intertwined and in the form of a continuation of each other." (P: 70)
>
> "Primary school curriculum is like a matryoshka because each of its stages is a continuation of each other in a spiral way" (P: 45)
>
> "The primary school curriculum is like a pomegranate because it looks like a curriculum when we look at it, but when we open it, we can see how complex it is" (P: 51)
>
> "The primary school curriculum is like a pomegranate because it looks like a lesson, but it contains many lessons in its content." (P: 52)
>
> "The primary school curriculum is like a pomegranate because when you look at the pomegranate, it is like a whole, but when you see the inside of the pomegranate, there are many seeds. The primary school curriculum also contains more than one information when we look at inside the curriculum, just like the whole curriculum when you first look at it." (P: 54)
>
> "The primary school curriculum is like a construction project because before making a construction, it is aimed to achieve the best of the construction plan, schedule, time, and quality. Therefore, it is determined in advance step by step. The primary school curriculum is also prepared to step by step to achieve such goals. Just as construction does not start before the foundation is erected, the curriculums in primary school are prepared in such a way as to reach big goals by starting from the most basic concepts." (P: 39)
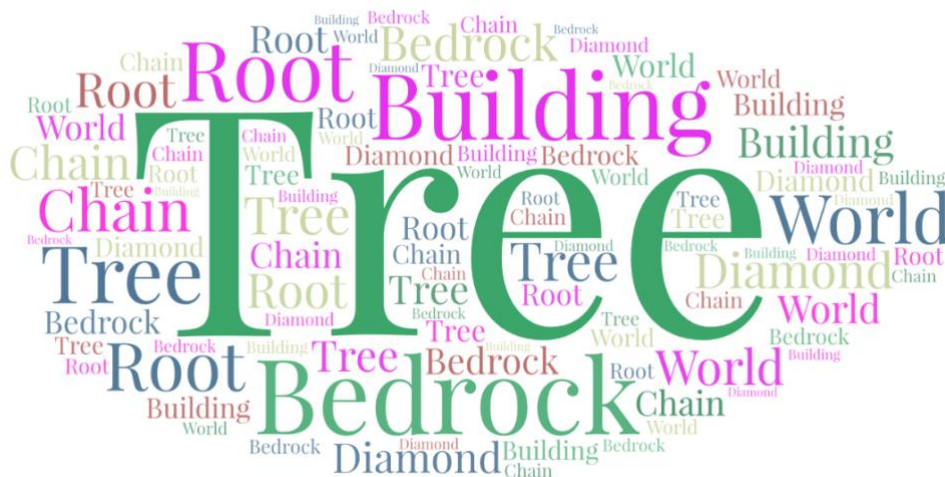

Figure 3: Metaphors Related to PSC as the Foundation of Education

Figure 3 shows the metaphors under the theme of the PSC as the foundation of education. It is seen that this theme consists of 18 metaphors. Accordingly, it is observed that pre-service teachers perceive the PSC as the foundation of education. Among the metaphors identified in this theme is the foundation of a building, tree root, tree, world, diamond, and chain. According to this theme, the candidates thought of the PSC as the foundation of education, just as the building has a foundation the primary school forms the basis of education, that this foundation should be solid, as it should be as solid as the root of a tree, and that it was as valuable as a diamond. Sample vignettes of prospective teachers regarding the metaphors for the PSC as being the foundation of education are given below:

"Primary school curriculum is like the foundation of a building because, without foundations, a building cannot have upper floors. The curriculum is very important because the student is placed in a school for the first time and they learn everything as it should be through school. If the primary school curriculum is not robust and is not implemented well, the student cannot succeed in either middle, high school, or university." (P: 16)

"The primary school curriculum is like a building's foundation because before a building is built, a foundation is laid. If this foundation is not well laid, the building will not be strong. So is education." (P: 17)

"Primary school curriculum is like the foundation of construction because a reliable building is erected on a solid construction"(P: 40)

"The primary school curriculum is like a tree's root because the primary school curriculum determines the entire academic career of individuals, so the curriculum, that is, the foundation, must be solid." (P: 2)

"The primary school curriculum is like the root of the tree because the stronger the root, the more efficient, healthy, and orderly its functioning." (P: 4)

Figure 4: Metaphors Related to PSC as Being a Guide

There are metaphors under the theme of 'being a guide' in the PSC in Figure 4. In this theme, 12 metaphors were identified. Accordingly, it is observed that the participants perceive the PSC as a guide. Among the metaphors identified in this theme; are the sun, compass, guide, teacher, highway, navigation, and key draw attention. According to this theme, it has been determined that the participants think that the PSC is a prospectus as a pathfinder, guides its implementers, and facilitates the work of teachers as a guide. The sample expressions regarding the metaphors for the PSC as being a guide are given below:

"The primary school curriculum is like a guide because it guides primary school teachers." (P: 68)

"Primary school curriculum is like a compass because if we are on an unknown path, I think we need to take a compass with us in order not to get lost or go the wrong way. It is the same in education, primary school curriculum organizes and guides us on the path we will go" (P: 66)

"The primary school curriculum is like a compass because the pre-set goals are realized by looking at the curriculum. The desired goal is achieved through a plan with the help of the curriculum. That's why the primary school curriculum is our compass. It helps us find our way. It saves us from complexity." (P: 67)

"Primary school curriculum is like a highway because the road is a tool that will take us from one place to another like education and curriculum" (P: 59)

"A primary school curriculum is like navigation because it guides you to the outcomes and it allows you to plan." (P: 55)

"Primary school curriculum is like the sun because it illuminates us like the sun and it lights our way. The curriculum lights our journey toward becoming a good teacher" (P: 35)

"The primary school curriculum is like a key because it facilitates the lesson plan and generally this curriculum is a key to all educational things" (P: 10)

Figure 5: Metaphors Related to the PSC as Individual Foundations

Figure 5 shows the metaphors under the "individual foundations" theme of the PSC. In this theme, nine metaphors were identified. Among the metaphors identified in this theme; analogies such as flower, orchard, adventure book, sculpture mud, sapling, and flower garden draw attention. According to this, it was observed that the participants thought that the applications included in the curriculum should meet the needs of the students, reveal the talents of the students, and have the features to develop their talents, that what was learned should be related to real life and that it should work in real life. In addition, the participants perceive the PSC as an element that develops individuals. The sample expressions of the pre-service teachers regarding this are given below:

"The primary school curriculum is like an orchard because each student is like the fruit of a different tree." (P: 48)

"The primary school curriculum is like an adventure book because as you read the book, new excitements, feelings of curiosity, the ability to ask questions, and the ability to think arise. It is good to be curious about something, it develops people. Therefore, the primary school curriculum is like an adventure book for me." (P: 43)

"The primary school curriculum is like sculpture's clay because it covers the age ranges in which a person's character will be formed." (P: 37)

"The primary school curriculum is like a sapling because the curriculum's purpose is to water young children like saplings and turn them into trees, that is, adults.." (P: 31)

"The primary school curriculum is like a flower garden because the more we care for it, water it regularly, take care of each flower separately, the more beautiful that garden will be" (P: 25)

"The primary school curriculum is like atoms because everything is made of atoms. The foundations of the future profession of the student are laid at these times for the goodness or beauty of the character structure. Therefore, the primary school curriculum is like atoms" (P: 12)

"The primary school curriculum is like a flower because if we pluck the flower from the branch, it withers. If the primary school curriculum is not suitable for the students, it does not help the development of the students and the children at a young age." (P: 24)

Figure 6: Metaphors for the PSC as being Purpose-Oriented

In Figure 6, there are metaphors for the theme of the curriculum as purpose-oriented. In this theme, seven metaphors were identified. Among the metaphors identified in this theme; metaphors such as seed, ladder, school, and sunflower seed seem important. According to this, it is seen that the participants perceive the PSC as an element that achieves the goals. The participants stated that the seeds of whichever crop is desired to be collected are sown, that the goals set in the PSC and the goals to be achieved in the future have been reached, and that they have progressed step by step in line with the determined goals. The vignettes from the participants' views about the PSC being purpose-oriented are given below.

"Primary school curriculum is like a seed because you reap what you sow, it shapes the future" (P: 76)

"Primary school curriculum is like a seed because it provides the opportunity to correct the most changeable part of the society by sprouting" (P: 78)

"Primary school curriculum is like a seed because it is the basis for the ripening of the fruit like the curriculum has purposes like educating kids for the future." (P: 21)

"The primary school curriculum is like a ladder because it allows us to move forward and reach the goal of education." (P: 47)

Figure 7: Metaphors about the Applicability Theme of the PSC

Figure 7 shows the metaphors under the "applicability" theme of the PSC. Seven metaphors were identified in this theme. Accordingly, the participants thought that the PSC should be applicable in educational settings. Among the metaphors identified in this theme; analogies such as games, machines, and fork-spoon draw attention.

Gamification is necessary for activities for children to learn. It is observed that the candidates mostly use the game metaphor for PCS. According to this theme, it was determined that the pre-service teachers thought that the PSC should be applicable and that the activities in the curriculum should attract the attention of the child and be able to use it in their daily lives. The sample expressions of the participants regarding the metaphors of the applicability of the PSC are given below:

> "Primary school curriculum is like a game because children learn by playing and the curriculum suggests using games in teaching activities." (P: 60)

> "Primary school curriculum is like a game because it has simple acquisitions and fun and game-based activities can be done." (P: 61)

> "The primary school curriculum is like a game because the curriculum contains many subjects to learn with fun and play that there is something from life for primary school children." (P: 62)

> "Primary school curriculum is like a machine that works systematically because there are wheels in the system that makes up the machine, and to run this system positively, that is, in the desired direction, the wheels must be placed very meticulously for its purpose. The features and purposes that form the foundations of the curriculum are like the wheels in the same system. If these purposes are determined and determined meticulously in a correct and useful way, the curriculum (machine) can also have a regular and healthy system." (P: 44)

> "Primary school curriculum is like a blank paper because it is the teacher who will fill it and will apply." (P: 18)

> "Primary school curriculum is like fork-spoon because you cannot make a student eat with a fork something that should be eaten with a spoon. I think the curriculum was prepared according to the needs of children so they can learn easily." (P: 19)
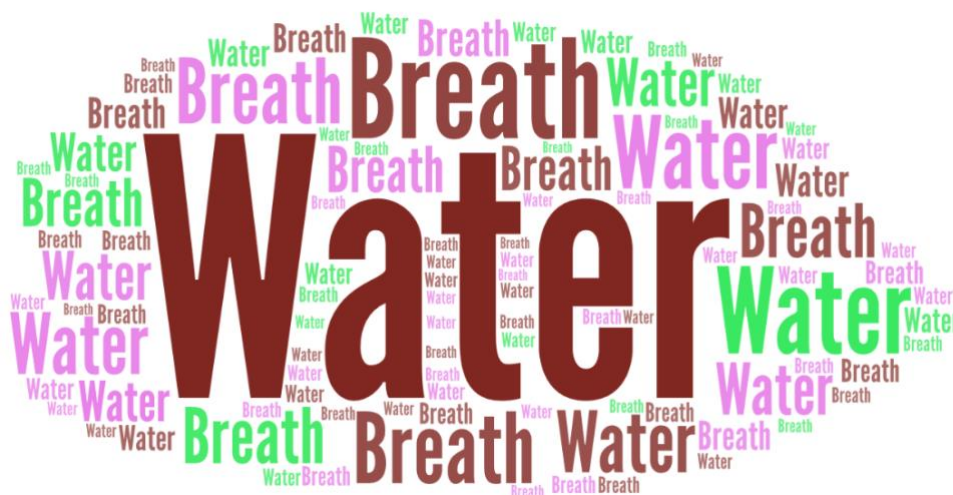

Figure 8: Metaphors for the PSC as the Foundation of Life

Figure 8 shows the metaphors under the theme of the PSC as the foundation of life. Five metaphors were identified in this theme. Accordingly, it is observed that the participants perceive the PSC as the basis of life. Among the metaphors identified in this theme; analogies such as water and breath draw attention. According to this theme, the participants think that the PSC is an indispensable element for education, as they compare the PSC to water and breath, which are necessary elements for the continuation of life. The sample expressions of the participants regarding the metaphors of the PSC as being the foundation of life are given below:

> "The primary school curriculum is like water because just as water is the foundation of everything, elementary school curriculum is the foundation of education and people cannot continue their education without a primary curriculum as a start to their education." (P: 71)

> "The elementary school curriculum is like water because the elementary school curriculum is just as important as water to us." (P: 72)

> "The primary school curriculum is like water because water is the foundation of all humanity and the curriculum is essential to the education of people." (P: 73)

"The primary school curriculum is like water because water is indispensable for our basic life. The primary school curriculum is also indispensable as it is very important for our children, who are our future." (P: 74)

"Primary school curriculum is like breathing because we cannot maintain a healthy life without breathing. Without the curriculum the children cannot have a better education." (P: 57)

Figure 9: Metaphors in for the Other Theme

According to Figure 9, four metaphors were identified in the theme of Other. Accordingly, the candidate teachers created metaphors suitable for the categories of justice, social foundations, immutability, and generality, which are the elements of the PSC. Among the metaphors identified in this theme; analogies such as justice, mirror, roof, and frame draw attention. According to this theme, it was observed that the participants thought that the PSC determined the general goals, that teachers should be role models in achieving these goals, and that all students could benefit from equal rights. Sample expressions of prospective teachers regarding the metaphors of the other theme are given below:

In the social foundations' category:

"The primary school curriculum is like a mirror because they are a reflection of us. Because when we look at them, we see ourselves, we raise parts of us, they take us as role models in every way, whether we have affective, cognitive, or psychomotor skills, we transfer what is happening to us" (P: 13)

In the category of immutability and generality:

"Primary school curriculum is like a framework because it covers general lines for education and the teachers who implement the curriculum. Without a frame (curriculum) the teachers can be lost in the contents." (P: 22)

"The primary school curriculum is like a roof because, in general, it is always adhered to. Without a roof, the building is incomplete, without a curriculum, education is incomplete, and teachers have trouble deciding what to do." (P: 20)

In the justice category:

"Primary school curriculum is like justice because primary school curriculum has equal and democratic benefits for everyone. Education is a main human right and children should not be left without education that is the primary curriculum." (P: 1)

4. Conclusion and Discussion

In this study, the perceptions of teacher candidates as a stakeholder for the PSC were investigated through metaphors. There are 60 different metaphors related to the concept of PSC. The prospective teachers mostly created metaphors for the PSC with pomegranate, tree root, water, seed, sun, and tree. The metaphors such as breath,

chain, compass, flower, game, puzzle, sapling, and the bedrock of a building were produced by at least two participants. The metaphors such as justice, adventure book, atom, basis, blank paper; and key were created once by 45 different participants. The data were examined according to the characteristics of the curriculum and findings were reached in this direction. The metaphors created by the participants emphasize the different features of the PSC. Based on the findings eight themes emerged based on the curriculum's characteristics. The themes were PSC as being systematic, being the foundation of education, being a guide, individual foundations, purpose-oriented, applicability, being the foundation of life, and others. The themes of curriculum as being systematic, being the foundation of education, and being a guide have the highest number of metaphors.

The pre-service teachers in this study percept the PSC as a pomegranate, spiral system, puzzle, matryoshka, and embroidery. Accordingly, it can be inferred that the candidates consider the PSC as being systematic and complex, containing a lot of information and forming the basis of all levels of education. The participants of this study think that the PSC is systematic and they state that the curriculum is interconnected, spiral, and complex. When the curriculum is evaluated in terms of its features, it can be inferred that the teacher candidates are aware of the general structure of the curriculum and its complex nature. This finding is in line with the research conducted by Gültekin (2013). According to his findings, prospective teachers emphasized the complex structure of the curriculum. A similar result was found by İzalan and Gögebakan-Yıldız (2018) that the curriculum is thought of as complex by teacher candidates. Aykaç and Çelik (2014) and Özkal (2020) also revealed that pre-service teachers had negative perceptions of the curriculum and saw it as complex. These findings are understandable because these researches were related to the 2006 curriculum, which was, according to some researchers (e.g. Gültekin, 2020), complex and loaded with lots of outcomes, explanations, and activity examples. Because of this complex nature, it was revised in 2018 and made simpler. In addition, the curriculum's complex nature was shown in a study that beginning teachers problematize the curriculum by expressing that they are subjects not objects to the curriculum because the curriculum is prepared externally and its rigid construction (Fisher-Ari & Lynch, 2015).

When the metaphors related to PSC as the foundation of education are examined it can be said that the participants compare the PSC with the foundation of the building and the root of the tree. According to this theme, primary school teacher candidates think that the curriculum is the foundation of education. This perception may be due to their emphasis on primary school education. Primary education is especially important for children's education because it is considered that success later in their life depends on the skills, values, and beliefs they gain at this basic education level. The findings of the studies done by Gültekin (2013), İzalan and Göğabakan Yıldız (2018), and Serhatlıoğlu (2016) are similar to this study. The participants in their study had a similar thought that the curriculum is important for primary education level students who are learning the basics of their future education life. Accordingly, it can be said that primary school teacher candidates are aware of the importance of the PSC in the education system.

The participants created metaphors related to PSC as being a guide in which they use the compass, navigation, guide, and the sun as metaphors in this theme. Accordingly, it can be inferred that pre-service teachers think of the PSC as a guiding and facilitating tool for teachers. This can mean that teachers can benefit from PSC to plan, implement, and evaluate educational activities. Just as the navigation and compass guide the person in need, the PSC guides the teacher in planning teaching activities and provides a more qualified teaching environment. It can be said that this finding is important in terms of the features and purpose of the curriculum. Because one of the most important features of the curriculum is to guide practitioners. Akınoğlu (2017), Fırat Durdukoca (2017), and Yıldız, Özen, and Yıldız (2018) concluded that teacher candidates perceive the curriculum as a guide for teachers while teaching. The findings of a study by Oyetoro and Kareem (2022) and Yurdakul (2015) indicate that pre-service teachers perceive the curriculum as a guide to teachers. Similarly, the findings of the current study confirm that teacher candidates think of the curriculum as a guide for its practitioners, the teachers.

According to the metaphors related to the PSC as individual foundations, pre-service teachers compared the PSC to flowers and flower gardens. The participants draw attention to children's differences, interests, and needs. They think that the PSC should be based on individuals (children), and the curriculum should be prepared based on students' differences and interests. Because these important points are emphasized in the curriculum by the MoNE (2018), it can be said that teacher candidates are aware of these important issues. This finding contradicts

Özdemir's (2012) findings that prospective teachers see the curriculum as behaviorism oriented; their perceptions are close to Tyler's understanding of the curriculum and report that there are very few metaphors that reflect the constructivist understanding, which underscores children's individual differences and interests. This contradiction can be a result of the fact that Özdemir's (2012) study was related to the 2006 curriculum, which is different from the 2018 curriculum.

When the participants' perceptions are examined, it is seen that pre-service teachers mostly associated the PSC with a seed and a ladder. Just as a seed is planted and ladders are used for certain goals, it can be inferred that the participants think of the PSC as an element developed to achieve the determined goals. The curriculum is prepared based on the national goals that nations intend to have in their citizens. The first element of the curriculum is the objectives on which the curriculum is based. A quality curriculum should be related to the realization of the educational objectives (Gültekin, 2017). It can be inferred that the participants think of the PSC as a factor that shapes the future to achieve the determined goals. The finding related to this conflicts with the findings of Yeşilpınar Uyar (2017) because the researcher concluded that the knowledge level of teacher candidates about the curriculum is partially sufficient in his study.

When the participants' metaphors are examined, it is observed that they compared the PSC mostly to games, machines, and fork-spoon. Accordingly, it can be inferred that the PSC should be applicable in real classrooms. The content in the curriculum should be related to real life and they should be prepared to meet the children's individual needs and the needs of the society in which the curriculum was developed. It is also important to underscore the fact that the curriculum should be based on revealing the hidden talents of individuals and improving them. As the implementers of the curriculum, the teachers should be able to adapt the content in the curriculum according to the children's social characteristics. In addition, the teachers should be able to organize the teaching and learning activities based on the student's interests, needs, and environmental conditions. In short, the PSC should be implemented based on the different needs and interests of children.

According to the applicability theme, the participants drew attention to the applicability feature of the curriculum, which is one of the important features of the curriculum. When the curriculum is prepared functionally and flexibly, it may be possible to implement them in all schools of the country. A curriculum that is not viable, even if it is a perfect one, has no meaning and remains the "official" curriculum on policy papers. In this respect, the participants need to perceive the PSC as applicable. Because when pre-service teachers start teaching, they will have to apply the curriculum and it can be thought that if they find the curriculum applicable, it will positively affect the implementation of the curriculum.

For the PSC as the foundation of life theme, the participants compared the PSC to water and breath. The PSC is crucial to the student's ability to continue their education, just as oxygen and water are essential to life. It can be concluded that the teacher candidates emphasize the importance of primary school education. Primary school is the school level where individuals receive the most basic education, learn to read and write and acquire basic mathematical and social communication skills (Korkmaz, 2021). For this reason, it is a remarkable finding that teachers who will be teaching at this level, in other words, who are in the position of planning, implementing, and evaluating education for students, have grasped the importance of primary school and education.

In the "other" theme, the participants created mirror, frame, roof, and justice metaphors for the PSC. According to this, the PSC is seen as a general framework in educational practices. In addition to this, the values of society should be transferred through the curriculum by being a role model for future generations. Some of the participants in this study emphasized the objectives of the PSC and highlighted the concept of justice. According to this, the curriculum should be based on equality, which refers to the social basis of the curriculum that is unchanging and general. The immutability and generality principle of the curriculum refers that the contents of the curriculum should be taught in all schools. However, this does not mean that it is taught in the same way and at the same time in all schools. In other words, the content in the curriculum can be adapted or covered in depth according to the conditions of the school, class, students, teacher, and environment.

It is interesting to observe that the participants did not produce any metaphors related to the scientificity, economic compatibility, and compliance with the expectations of society and the state features of a quality curriculum. Because the curriculum as scientific emphasizes that it is prepared or should be prepared by contemporary educational psychology and teaching-learning theories. In 2018 curriculum documents, the MoNE (2018) explains this by outlining that the curriculum was prepared based on new developments in learning psychology, educational sciences, and the needs of the economy. However, the participants did not produce any metaphors related to these. It can be concluded that the participants are not aware of these features of the curriculum.

While previous studies in the literature examined the perceptions about the previous PSC, this study examined the perceptions about the new 2018 PSC. In this context, the differences in the findings obtained in the current study can be related to the structure of the curriculum and the change in teacher education. In the previous teacher education catalog the courses related to the curriculum were fewer however in the new catalog, more courses – compulsory and elective- related to PSC were added, and by doing so the candidates have more chances to examine the structure of the PSC and the curriculum development process, and to interact with the PSC.

In general, it can be concluded that primary school teacher candidates have perceptions that are suitable for most of the basic features and philosophy of the PSC. Although studies in the field of curriculum development have increased in recent years, it is observed that the perceptions of prospective teachers, who are among the important stakeholders of the curriculum, are not studied enough. It is believed that this research fills an important gap in the field. Within the framework of the results of the present study, it can be concluded that the results have provided curriculum development experts with some data.

5. Limitations of the Study and Recommendations

The results of this study are important in terms of teacher education and curriculum development. This cross-sectional study was conducted with students in an education faculty, and due to the nature of qualitative studies, there is very little opportunity to generalize. Although the findings allowed making inferences about the perceptions of prospective teachers about the PSC, there is a need for similar studies with different methods and tools. In the context of the results of this study, the recommendations are as follows:

- Activities can be designed to increase the curriculum literacy levels of prospective primary school teachers.
- Activities for teacher candidates who are in the position of applying the PSC to examine the current curriculum more deeply and critically can be carried out.
- PSC and curriculum development elective courses can be made compulsory and the teaching methods and techniques of the course can be improved.
- Curriculum development specialists can use the data from research done with pre-service teachers to update and renew the current curriculum.
- Qualitative and quantitative research with different participants and research designs can be conducted to examine the perceptions and attitudes of teacher candidates toward the PSC.

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