Innovative Teacher: From the Perspectives of Pre-Service Foreign Language Teachers

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ABSTRACT

The aim of this study is to determine and describe the features of innovative teachers from the perspective of pre-service teachers. For this purpose, this study took a qualitative approach and included 139 pre-service teachers studying at the 1st, 2nd, 3rd, and 4th grades in the English Language and German Language Teaching Departments in the Education Faculty of a Public University. The data obtained via an open-ended survey form developed by researchers in the context of this study. The data obtained was analyzed with the content analysis method and then interpreted. The results of the analysis showed that pre-service teachers created 90 metaphors classified under seven different themes: "current," "open to change", "guide", "creative", "open to learning", "student-centered instruction," and "building positive relationships" to describe innovative teachers. Then, the pre-service teachers described the qualities of innovative teachers with their views classified under seven categories, which were in line with the themes obtained from metaphor analysis. For the last dimension of the study, they expressed their views regarding their needs to be able to be innovative teachers. According to their views, they need to have the knowledge and improve themselves in the following six categories: pedagogical content knowledge, digital competencies, professional content knowledge, communication skills, interdisciplinary knowledge, and knowledge of instructional technologies and material design. The themes were presented and discussed in a way of unity, so suggestions were made within the scope of the study.

Keywords:
Innovative teacher, pre-service teachers, 21st century skills, innovative education

1. Introduction

Innovativeness is seen as a desired feature in individuals in order to make a difference both individually, socially, and institutionally in today's society, where rapid social, political, scientific, technological, and economic developments are experienced. The societies of today require to be raised in a way that they can easily adopt and respond to the speed of the adapting process and producing innovations (Kılıçer, 2011). Because innovation has an important role in the learning and development of 21st-century skills and makes it essential for individuals to be lifelong learners in the face of the uncertainties and complexities created by developments in this age (Charkas, 2018). Viewed from this point, the process of adoption for any innovation is essential to the societies (Rogers, 1983). For example, although many students start their university lives with a certain level of basic understanding of technology and the internet, unfortunately, it is still questioned whether they can experience productive and quality lives with the challenges of the digital society and online connections (Martzoukou, Fulton, Kostagiolas & Lavranos, 2020). What is more, educational innovations cannot always be limited to the use of mechanical, electronic, or digital devices. Innovations in education refer to the adoption of practices that will lead to more effective learning beyond the standard teaching practices

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given to students within the framework of a certain amount of time and resources (Redding, Twyman, & Murphy, 2013). Therefore, innovations in education require behavioral changes in society as well as the abandonment of old attitudes and habits for their adoption (Inbar, 1996). In this context, innovativeness is always questioned in terms of concept, method, practice, and educational outputs.

The concept of innovativeness in education attracts so much attention that its meaning, use, results, and effects on educational practices are questioned (Garcia, 2011). Various definitions of innovativeness have been made in different fields and periods. Originally derived from the French word "innovacyon" in the 1400s, the concept of innovation was used to mean renewal or doing something in a new way. By the 1970s, the concept had taken root in the field of economics as "change" (Whitehead, 2008). In these years, Hurt, Joseph, and Cook (1977) defined innovativeness as a willingness to change and a personality structure that is normally distributed in society. Scott and Bruce (1994) defined innovativeness as a process that starts with the definition of a problem and continues with producing a solution for the problem or adopting a new idea. In today's understanding, innovativeness is handled as a process that includes different skills such as defining the problems in and out of the classroom, collecting information about the problems, collecting and analyzing data, teamwork, interpersonal relations, critical thinking, creative problem solving, and effective communication. (Naifeld & Simon, 2017). As seen in the definitions, the concept of innovativeness is somehow associated with thinking processes (Süer & Kinay, 2019). When innovativeness is considered an effort to make or find meaning, it would be wrong to think of it as having a fixed sense in the minds of individuals throughout their lives (Kushner, 2002). On the contrary, it tends to change in time. Therefore, innovativeness is seen as a feature that can be developed and reconstructed through learning activities with the help of teachers (Garcia, 2011; Storen, 2016).

The increasing interest in the development of innovative skills in educational contexts has led to studies on the development of innovative practices in teacher education (Tyunnikov, 2017). These studies showed a moderate level of innovativeness for pre-service teachers who will raise new generations (Adıgüzel, Kaya, Balay, & Göçen, 2014; Çuhadar, Bülbül, & Ilgaz, 2013; Yenice & Yavaşoğlu, 2018; Yorulmaz, Çokçalışkan, & Önal, 2017). Besides, using information and computer technologies positively affects the level of innovativeness (Mueller, Wood, Willoughby, Ross, & Specht, 2008; Noh, Hamzah, & Abdullah, 2016; Yang & Huang, 2008). The related studies concluded that teachers' having innovative features will increase the quality of materials, methods, techniques, and evaluation processes used in education (Kocasaraç & Karataş, 2017), and changes in the technological field will also create differences in the quality of teachers (Yanpar-Yelken, 2017).

Foreign language learning is often a difficult process for learners, therefore it requires innovative ideas to organize different teaching activities, including interesting teaching materials and practices (Anil, 2017). Although there are many theories and strategies related to learning, discussions about what characterizes learning in a foreign language have contributed to the foreign language learning and teaching process (Kalaja & Barcelos, 2006). Emphasizing the learning experiences in the foreign language teaching process (Atchade, 2002: 49), enabling students to develop positive attitudes towards the language courses by considering the needs of the students in the courses, on the other hand, using motivational teaching strategies such as movies, videos, websites with reading activities (Oroujlou & Vahedi, 2011), including computer and information technologies, have an indispensable role in the foreign language teaching process (Büyükaslan, 2007), which appeared to characterize the foreign language teaching process. Therefore, the innovative foreign language teaching and learning process requires the adoption of a student-centered approach and innovative learning environments, and teaching processes. This process entails the use of new and diversified ideas, methods, strategies, and activities, considering the individual differences of students and active learning within the framework of an innovative approach (Zhu, Wang, Cai, & Engels, 2013). In this context, it is important for teachers to undertake an innovative mission and vision in foreign language education. An innovative teacher seems to have the 21st century education approach that will enable individuals to be successful in all areas of their lives (Kay & Greenhill, 2011). Teachers are expected to exhibit strong communication and collaboration skills, technology expertise, innovative and creative thinking, and problem-solving skills to help learners acquire these skills (Larson & Miller, 2011). However, a few studies in the literature deal with the qualities and characteristics of the innovative teacher and the areas in which s/he will need to make improvements. Based on this, since they are both 21st century learners and future teachers, it is important and valuable to understand

the perceptions of pre-service teachers regarding the concept of innovative teachers and how they can contribute to educational practices and teacher training programs. From this point of view, this study aimed to determine the qualities and characteristics of the innovative teacher according to foreign language pre-service teachers' perceptions through metaphoric concepts and structured questions. In line with this general aim, the following research questions were sought:

- What kind of metaphors do foreign language pre-service teachers produce for the concept of "innovative teacher" and how do these metaphors describe the concept of "innovative teacher"?
- How do foreign language pre-service teachers describe the characteristics or qualities of innovative teachers?
- In which areas do foreign language pre-servise teachers need self-development in order to be innovative teachers?

2. Methodology

This section includes information about the design of the research, the data collection tool, the study group, and the issues to be considered in the process of collecting, analyzing, and interpreting the data.

2. 1. Research Design

This study, which aims to examine in detail the views of foreign language pre-service teachers on the concept of an innovative teacher, adopted a phenomenology research design. Phenomenology is a qualitative research method based on discovering the essence of how individuals make sense of their experiences and how they reflect this in their lives (Patton, 2018).

2. 2. Study Group

The study group included foreign language pre-service teachers studying at a public university in the, English Language and German Language Teaching Departments in the spring semester of the 2021-2022 academic year. The participants were chosen by the criterion sampling method. Only freshman, sophomore, junior, and senior participants recruited in foreign language teaching departments were included in the study on a voluntary basis. The descriptive qualities of the participant pre-service teachers were presented in Table 1.

Table 1. *The Descriptive Qualities of Participant Pre-Service Teachers*

		English Language Teaching	German Language Teaching	Total	*f*
Gender	Female	57	35	92	66.2
	Male	39	8	47	33.8
Total		*96*	*43*	*139*	*100*
Grade	Freshman	19	13	32	23.0
	Sophomore	26	14	40	28.8
	Junior	29	3	32	23.0
	Senior	22	13	35	25.2
Total		*96*	*43*	*139*	*100*
f		*69.1*	*30.9*	*100*	

The table showed that 66 percent of the pre-service foreign language teachers taking part in the study group are female and 33 percent are male. To add, most of the participants were pre-service teachers studying in the English Language Teaching department (f= 69.1), and pre-service teachers from different grade levels were included.

2. 3. Instruments

An open-ended survey form was used to collect the data prepared by the researchers for the study. The open-ended survey form was prepared and consisted of two sections: personal information and open-ended questions. After having taken three expert opinions in the field (two in curriculum and instruction and one in foreign language teaching), the necessary revisions were made in line with the feedback. The final survey form, consisting of personal information, includes questions regarding gender, department, and grade levels, while the second part of the survey includes the following three questions: (1) The innovative teacher is like………. Because………… (2) Who is the innovative teacher and what are the characteristics or qualities of

innovative teachers in your opinion? (3) In which areas do you need to improve yourself in order to be an innovative teacher?

2. 4. Data Collection Procedure and Analysis

The data were obtained from the 139 voluntary pre-service teachers who formed the study group in the spring semester of the 2021-2022 academic year. The questionnaire forms were handed out to the volunteer pre-service teachers, and they were given 20 minutes to fill out the survey forms with their own handwriting. Any intervention was avoided until they completed. The data obtained from 139 pre-service teachers was analyzed through content analysis, which is a widely used method for analyzing qualitative data. With the content analysis, it is possible to see the conceptual explanations of the collected data and the relationships that they have (Yıldırım & Şimşek, 2018). Content analysis is a difficult process as raw qualitative data reflects the unexplained complexity of reality (Patton, 2018). Accordingly, the stages for data analysis suggested by Altındağ-Kumaş and Süer (2020), Bars and Süer (2020), Çelik-Şahin, Avcı, and Anık (2020), Flight (2016) and Ekici (2016) were followed in this study. These stages were determined as: (1) naming, (2) elimination, (3) creating a category, (4) ensuring validity and reliability, and (5) transferring the data to the computer.

Naming: Naming, which is seen as manageable classification or coding scheme development (Patton, 2018), is the first stage of the content analysis that includes coding of data. The data obtained are analyzed and divided into meaningful groups, and what each group means is investigated at this stage. These can include words, groups of sentences, or even paragraphs or one-page data. These groups, which show a meaningful integrity in themselves, are named; in other words, they are coded (Yıldırım & Şimşek, 2018). In this context, after the data were obtained, they were examined and coded individually by the researchers at this stage.

Elimination: At this stage, the researchers examine whether the thematic coding in question makes up a meaningful whole, whether the data is explained in a meaningful way, and whether different parts of the data set are handled effectively. All these reviews include consideration of internal and external validity (Yıldırım & Şimşek, 2018). All questionnaire forms were logically examined in terms of image, subject, and source by each researcher one by one.

Creating category: This stage was named by Patton (2018) as coincidence and detection in coding and classification. At this stage, researchers try to determine whether the data provides integrity with the category to which it belongs or shows a significant similarity with each other or not. In line with the study, metaphors and opinions produced by foreign language pre-service teachers were placed under different categories. At this point, each researcher read the questionnaires separately and took notes on the metaphors and opinions of the participants about "innovative teachers." In the next stage, common themes were determined, and the second coding stage was initiated. The next step was a comprehensive evaluation of the relevant literature studies to interpret whether the codes and themes contain disagreements or not, which were created in line with the obtained data by each researcher.

Ensuring validity and reliability: While developing the questionnaire form to ensure the reliability, validity, objectivity, and internal validity of the study, the relevant literature was comprehensively reviewed, and a conceptual framework was provided within the scope of the study. Since the content is subjective, in order to be valid, (1) the sample must be reachable to other researchers, and (2) it is important that the instructions for coding be structured in a way that similar results can be drawn from the same messages (Aziz, 2018). From this point of view, detailed information was given about the participants in order to ensure the external validity of the study. Data collection and data analysis controls were ensured for the internal reliability of the study (Yıldırım & Şimşek, 2018), and the research process was handled and explained in all its dimensions to ensure external reliability. Besides this, to ensure encoder reliability, the formula of Miles and Huberman (2019) "Percent of Agreement = Consensus / (Agreement + Disagreement) *100" was used. In this study, encoder reliability data obtained for each research question were calculated respectively as .94, .96, and .98.

Transferring the data to the computer: At this stage, after the categories related to the metaphors and opinions of foreign language pre-service teachers were determined, the questionnaires were coded as PT1, PT2, PT33,… PT139 and recorded in the computer file.

2.5. Ethical Issues

This study was conducted following the rules and principles of the "Higher Education Institutions Scientific Research and Publication Ethics Directive".

Name of the ethical board: Dicle University Social Sciences Ethics Committee

The date of the ethical assessment decision is: June 2, 2022; Document Issue Number: 296903

3. Findings and Results

In this study, foreign language pre-service teachers were asked to define and describe the concept of an innovative teacher using one metaphor and two open-ended questionnaire questions. The findings obtained as a result of the analysis are presented below within the scope of the research questions.

Within the scope of this question, 139 pre-service teachers created 90 metaphors related to the concept of an innovative teacher. The metaphors created by pre-service teachers were categorized by researchers under seven main themes: (1) being creative; (2) being open to learning, (3) guiding; (4) being open to change; (5) being current; (6) being student-centered; and (7) building positive relationships. The distribution of the metaphors created by the pre-service teachers regarding the determined categories is shown in Graphic 1.
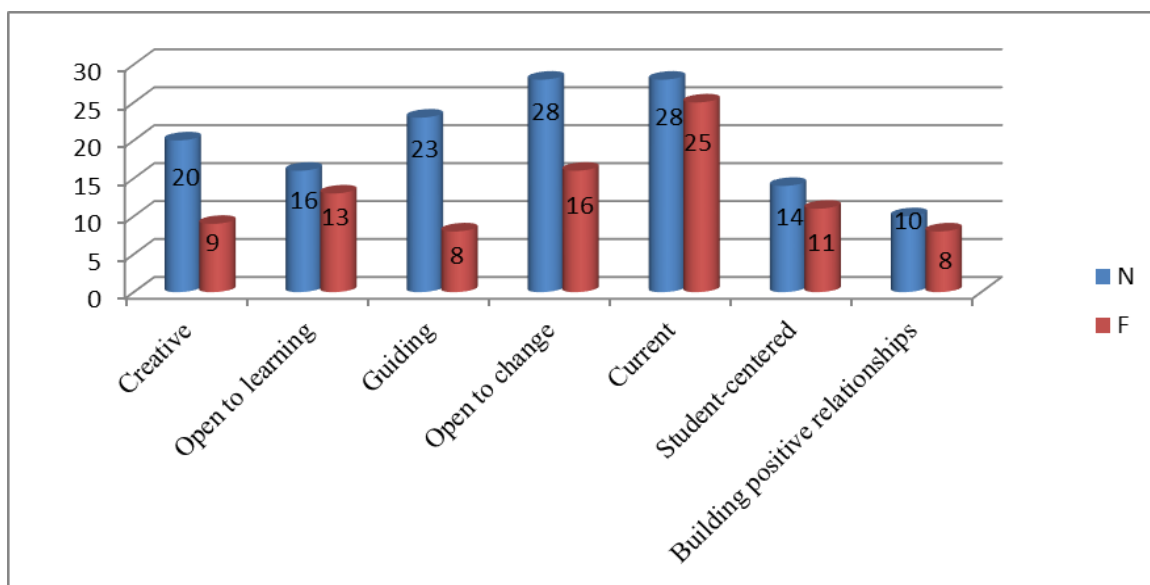
Graphic 1. *The Distribution of the Categories Created by the Preservice Teachers' Metaphors*

As seen in the graphic, pre-service teachers produced metaphors mostly in the "Current" category, with 25 different metaphors related to the concept of an innovative teacher. The categories "Guiding" and "Building positive relationships" produced the fewest metaphors, with only eight different metaphors produced in each. The metaphors produced by the pre-service teachers and their frequencies in each category are given in Table 2.

Table 2. *Metaphors Produced by Pre-Service Teachers in Each Category*

Categories	Metaphors	N	Metaphors	N
Creative (f= 9)	Artist	2	Ideal teacher	4
	An Oscar-winning movie	1	Technology	1
	Bee	1	Technology follower	1
	Encyclopedia	1	Social Media	1
	Fruitful Tree	8		
Open to learning (f= 13)	A constantly updated news website	1	Internet (N=1),	1
	Bee	1	Learner (N=1)	1
	Child	1	Mobile phone	1
	Ideal teacher	2	Scientist	2
	Creative	2	Sponge	1
	Explorer	1	Tree	1
	Foresighted	1		
Guiding (f= 8)	Guide	7	Role model	4
	Lamp	6	Revolutionist	1
	Leader	1	Scholar	1
	Lighthouse	2	Tech-savvy teacher	1
Open to change (f= 16)	Agenda	1	Skin changing snake Smart	1
	Foresighted teacher	2	phone	1
	Ideal	1	Technology	3
	Mobile apps updates	2	Time	1
	Person who is open to change	1	Traveler	1
	Person out of comfort zone	1	Tree	1
	River	2	Torch	1
	Person who searches and follows innovations and new methods	7	Water	1
Current (f= 25)	A New Library	1	Machine	1
	A new page	1	Mirror	1
	A quality vital for teacher and student	1	Self-improving person	1
	Book	2	River	1
	Computer	1	Sky	1
	Entrepreneur	1	Smart phone	2
	Fashion	1	Social media	1
	Fresh water	1	Sun	1
	Friend	1	Technology	2
	Guide	1	The best in the field	1
	Innovator	1	Wanted blood	1
	Key	1	Watch	1
	Leader	1		
Student centered (f= 11)	Computer	1	Open buffet	1
	Guide	1	Self improving person	1
	Friend	4	Student centered	1
	Lamp	4	Swan	1
	Mascot	1	Technology	1
	Mirror	1		
Building positive relationships (f= 8)	Friend	3	Ocean	1
	Guide	1	Sibling	1
	Gold	1	Stream	1
	Indian fabric	1	Sunflower	1

Table 2 showed that "guide" (N=10), "fruitful tree" (N=8), "friend" (N= 8), and "person who searches for and follows innovations and new methods" (N= 7) were the most popular and repetitive metaphors created by pre-service teachers. It seems that the pre-service teachers used the concepts of guide, fruitful tree, friend, and person who searches for and follows innovations and new methods more when describing the innovative teacher. Apart from this, the pre-service teachers also used concepts such as ideal teacher, artist, bee, technology, river, sun, sunflower, computer, book, social media, smartphones, and applications while describing the innovative teacher. Certain metaphors, like bee and creative, are used by the preservice teachers with different qualities and explanations. These were classified under different categories in line with the pre-service teachers' reasoning and explanations. Some views of pre-service teachers regarding these themes are as follows:

> *The innovative teacher is like a tree. Because it needs to renew itself every year. I think teaching is a very difficult profession. An innovative teacher should always do things that will attract the attention of his students with creative ideas (PT78).*

> *The innovative teacher is like a telephone. Because it tries to progress by adding more and more to itself every day and is open to innovations. S/he has knowledge. S/he makes every effort to be persistent (PT101).*

> *The innovative teacher is like a torch. Because it guides, helps, and directs the student correctly. It uses more up-to-date and innovative methods than classical methods (PT4).*

> *Innovative teachers are like applications that constantly update themselves. Because they should follow the innovations and changes in teaching, they should keep up with and benefit from these changes and innovations in teaching (PT129).*

> *The innovative teacher is like social media. Because it knows how to keep up with new trends, approaches, and changing needs of students in education. He keeps his course, plans, etc. constantly up-to-date. S/he is prepared for these needs (PT137).*

> *The innovative teacher is like a computer. Because the computer is full of both old and new information. There are many ways to get the desired information. Innovative teachers are people who are competent in their profession and who are blended with knowledge of all kinds appropriate for students (PT72).*

> *The innovative teacher is like a friend. Because instead of a strict discipline system, it gives education by considering our interests and needs. It helps not only with lectures but also with situations related to our lives (PT19).*

Within the scope of this question, pre-service teachers were asked to describe their innovative teacher characteristics, and a total of 105 pre-service teachers responded to the related question. As a result of the analysis of the data, seven main themes describing the characteristics of the innovative teacher emerged. Pre-service teachers' views and frequencies regarding innovative teacher characteristics were presented in Graphic 2.
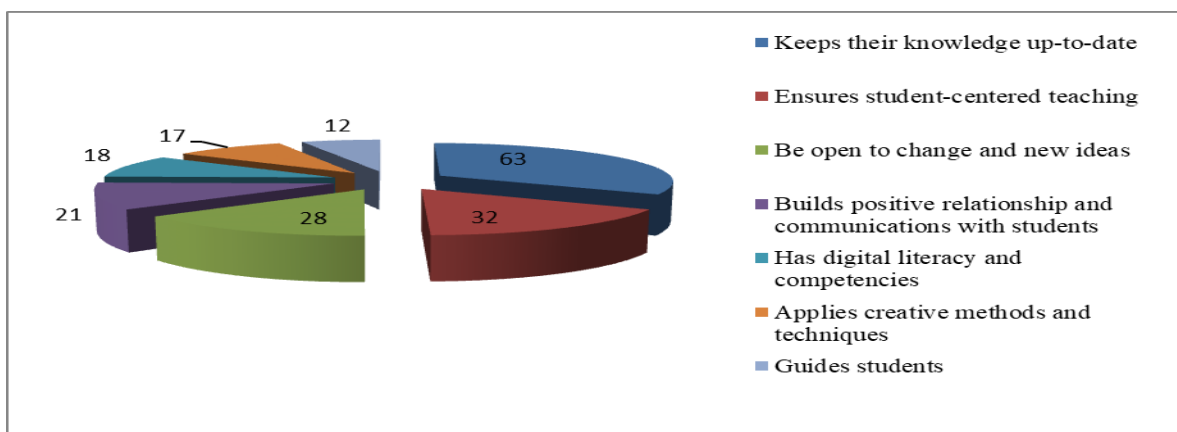
* The fact that the total number of frequencies is higher than the number of participants is due to the fact that some participants expressed their views on more than one theme.

Graphic 2. *Pre-Service Teachers' Views and Frequencies Regarding Innovative Teacher Characteristics*

Graphic 2 shows that foreign language pre-service teachers' views on innovative teacher characteristics are grouped under seven main themes: (1) Keeps their knowledge up-to-date; (2) Ensures student-centered teaching; (3) Be open to change and new ideas; (4) Builds positive relationships and communications with students; (5) Has digital literacy and competencies, (6) Applies creative methods and techniques; (7) Guides students. The frequencies of themes showed that pre-service teachers frequently highlighted the prominent qualities of innovative teachers as people who keep current knowledge and follow the developments (f=63), ensures student-centered teaching (f=32), and is open to change and new ideas (f=28) by frequently mentioning these themes. The pre-service teachers expressed slightly less opinion on the theme of guiding students (f = 12). Some views of pre-service teachers regarding these themes are as follows:

> *The innovative teacher is a well-developed teacher with both field knowledge and teaching duties, as well as human relations and technology. An innovative teacher is a person who does not follow traditional methods and uses new methods and techniques by making use of technology in line with the needs and interests of the learner. [PT16].*

> *The innovative teacher is a teacher who considers the needs of the age and is sensitive to the expectations and wishes of the students in today's conditions [PT21].*

> *An innovative teacher is a person who can synthesize the needs of the age and the student profile well. He is a person who constantly updates his methods and is open to innovations [PT37].*

> *The innovative teacher is constantly striving for self-improvement. However, it is constantly trying to find and apply new methods and techniques [PT100].*

> *Innovative teachers are those who apply new teaching methods to their lessons. They are teachers who are not prejudiced and are open to innovations [PT107].*

3. 3. Pre-service Teachers Needs for Improving Themselves to Become Innovative Teachers

Within the scope of this question, pre-service teachers were asked to describe the areas in which they needed improvement in order to be innovative teachers, and a total of 102 pre-service teachers responded to this question. As a result of the analysis of the data obtained from the pre-service teachers, six main themes were created to describe the areas they needed to develop in order to be innovative teachers. Pre-service teachers' views and frequencies on the areas they need improvement were presented in Graphic 3.
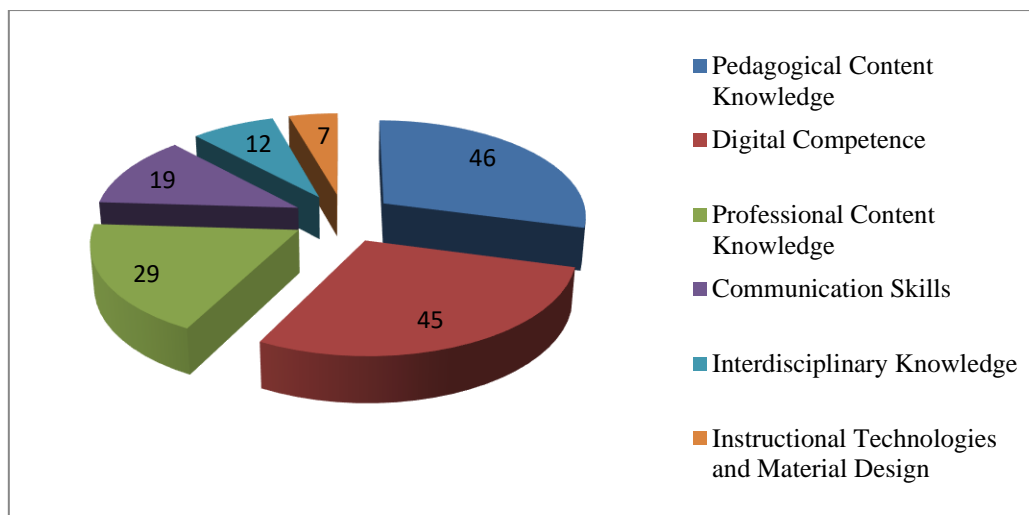
* The fact that the total number of frequencies is higher than the number of participants is due to the fact that some participants expressed their views on more than one theme.

Graphic 3. *Pre-Service Teachers' Views and Frequencies on the Areas They Need Improvement*

As seen in the graphic, pre-service teachers views on the areas they need to develop in order to be innovative teachers are categorized under six main themes: (1) Pedagogical Content Knowledge; (2) Digital Competence; (3) Professional Content Knowledge; (4) Communication Skills; (5) Interdisciplinary Knowledge; (6) Instructional Technologies and Material Design. Related themes showed that pre-service teachers need the most improvement in the themes of Pedagogical Content Knowledge (f=46) and Digital Competence (f=45) in

order to be innovative teachers, and the least improvement in Instructional Technologies and Material Design (f=7). Some opinions of the pre-service teachers regarding this question are as follows:

The innovative teacher needs to develop herself or himself in the fields of technology and human relations [PT08].

In order to be an innovative teacher, I think we should improve ourselves in technology. We should not stick to the old methods and try to apply new ones. Language learning is very important nowadays. Speaking skills and good communication with the student are also important [PT53].

Professional development for teachers should be continuous, and they should not hesitate to learn with their students. S/he should improve himself/herself in pedagogy because, in this way, he can better guide his students [PT100].

We need to improve ourselves technologically. In order to get to know the students better, we need to specialize in educational science [PT134].

Especially in language education, children need to be constantly exposed to foreign languages. Unfortunately, this is ignored in traditional language teaching. Courses focus on writing and grammar teaching. To be innovative, we have to break through that. We should include as many authentic materials as possible in the lesson. As I said before, we should take advantage of the countless resources that the Internet offers us. [PT137].

As a result, the opinions of the foreign language pre-service teachers could be summarized in line with the findings about the characteristics of innovative teachers and the need for improvements in order to become an innovative teacher.
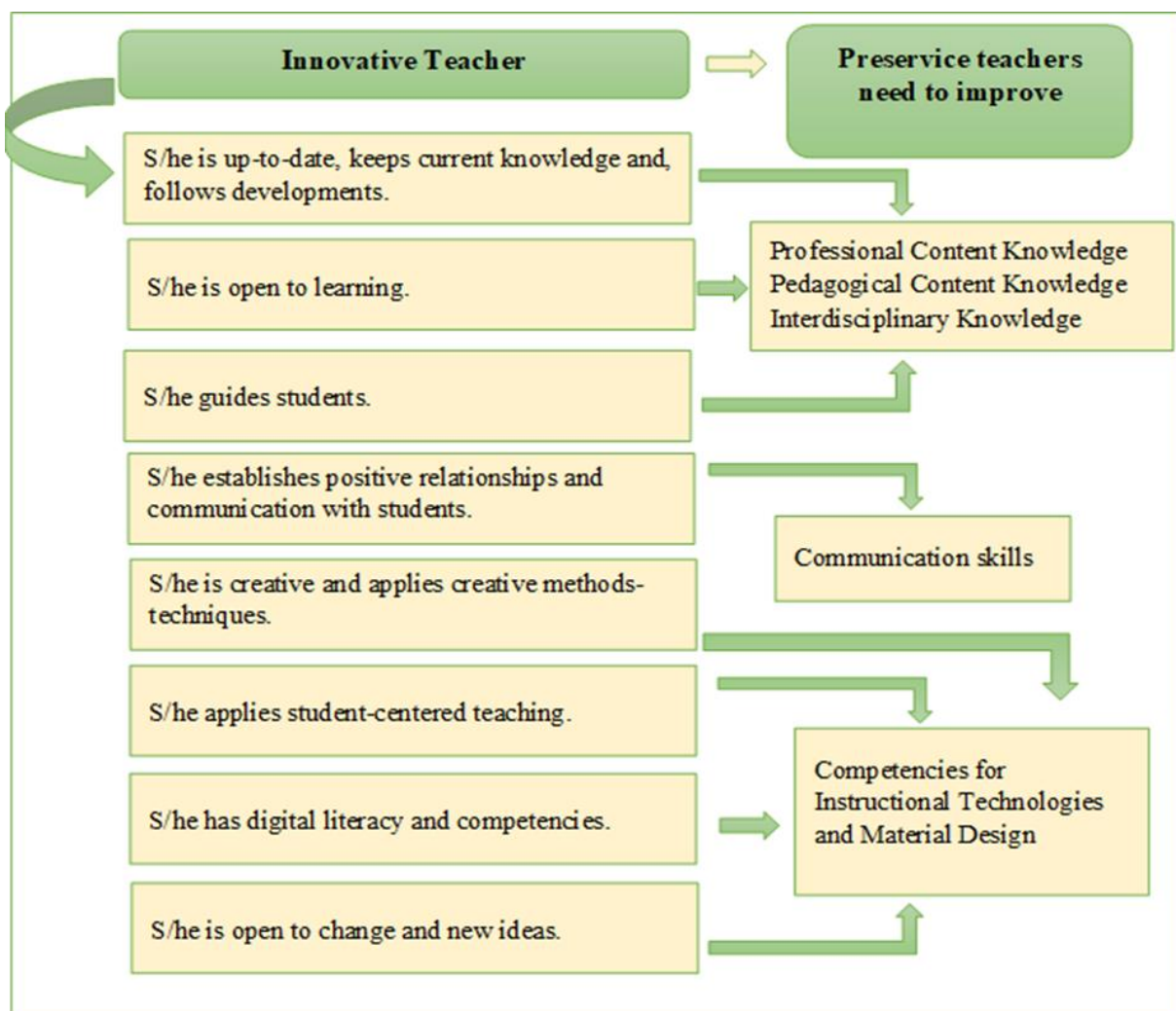
4. Discussion and Conclusion

The analysis of the data obtained in this study examining the concept of "Innovative Teacher" from the perspective of pre-service foreign language teachers showed that they used 90 metaphors to describe the innovative teacher. It was seen that the most commonly used metaphors to describe the "Innovative Teacher" were the *Guide* and the *Fruitful Tree*. These two metaphors were categorized as the themes of *Guiding* and *Creative*. It determined that while the most used metaphor was the Current, the least used metaphor was the Building Positive Relationships. In this way, the metaphors obtained within the first question of the study were classified by the researchers *as Current, Open to Change, Guiding, Creative, Open to Learning, Student-Centered*, and Building *Positive Relationships* themes. It can be deduced that each of these describes the characteristics of an innovative teacher. In the second part of the study, pre-service foreign language teachers identified the characteristics of the "Innovative Teacher", and as a result of the analysis data, seven major themes were obtained. These were, respectively, *keeping current knowledge and following developments, applying student-centered teaching, opening to change and new ideas, building positive relationships and communication with students, having digital literacy and competencies, applying creative methods and techniques, and guiding students*.

In the related literature, an "Innovative Teacher" is defined as a teacher who reflects innovative pedagogical applications to their lessons, increases their knowledge, embraces a student-centered approach, considers professional development, uses effectively different teaching methods and techniques, is open to innovations, information technologies, learning, development, and collaboration (Süer & Oral, 2021; Süer et al. 2021; Kocasaraç & Karataş, 2018). As seen, the characteristics of the innovative teacher in the literature are consistent with the themes obtained in the study, and it is thought that the innovative teacher has certain basic characteristics, one of which is creativity. Considering the innovative teacher's characteristics, *creativity* is defined as the expression of personal and new ideas made through cognitive connections (Kanlı, 2019) and the process of creating new ideas, approaches, and actions as well (Addis, 2009). As known, only creating new ideas is not sufficient; they also need to be put into action (Gurtteen, 1998) to be innovative in any field, to uncover the new, to be creative, and to use ideas and convert them into practice (Yüner & Özdemir, 2020). In this respect, creativity is considered an initial point for innovations (Addis, 2009; Yenice & Yavaşoğlu, 2018). According to the study findings, innovative teachers should be creative, especially concerning the methods and techniques used in the classrooms. This is because teaching methods and techniques are appropriate ways to follow educational needs (Alkan, 2011), to address individual differences, and to ensure rich stimulus in the classrooms. In this way, the knowledge of the learners will contribute to the development of their creativity (Yanpar-Yelken, 2017). Facilitating students' creative potential is a significant element in terms of personal and social well-being (Kampylis, Berki, & Saariluoma, 2009), when considering instructional design factors for 21st century learning skills (Sahin, 2009).

Another theme used to describe the innovative teacher within the study is openness to learning. *Openness to Learning*, a 21st century skill, is considered an important factor in maintaining lifelong learning. Especially, when considering the sudden and rapid changes of information, data, and events in this century, lifelong learning and openness to learning skills are well required competencies (Adıgüzel & Dolmacı, 2018). So, the knowledge and skills acquired during the pre-service education process will not be considered sufficient because of the changes and developments that take place during the process of performing this profession. That is why, teachers should continue to learn and change sustainably, especially as innovative teachers, in order to perform their profession (Dalaman & Kara, 2021). Thus, they can adopt and transport innovative practices into a learning environment only by embracing new ideas and changes.

Based on the data obtained within the study, it is expected that innovative teachers will embrace the student-centered education approach. This approach is based on progressive education, which is one of the contemporary philosophies. Morever, the progressive education approach is based on the idea that life is constantly changing and that this change is a decisive factor in the interests and needs of the learners in education (Gökbulut, 2020). This feature is closely related to teachers' structuring of their teaching practices by taking into account the requirements of students with special needs, socio-economic status, cultural, linguistic, ethnic, individual differences, and special needs of the students (Borich, 2017). Therefore, acting with respect and understanding the student-centered approach, significantly affects the quality and academic success of education. The related studies in the literature showed that there is a relationship between the levels of innovation, the attitudes toward the student-centered approach, and the technical usage of teachers (Çetin,

2020). It stated that innovative teachers should give place to student-centered education, teaching practices, and different teaching methods by considering the needs and requirements of students (Kocasaraç & Karataş, 2018; Tomal, Demirkaya, & Demirhan, 2019). Based on these findings, it is understood that the teacher's student-centered education and training practices are considered important for innovation when considering 21ˢᵗ century learning skills.

One of the themes obtained within the study is that innovative teachers have currency. It is stated that one of the factors that aids teachers in remaining innovative at school is the teacher's current status. Expectations are increasing not only for students but also for teachers (Thurlings, Evers, & Vermeulen, 2015). *Currency* states must be aware of technological tools and the latest information in the relevant field. What is expected of an innovative teacher is that they can pursue the developments in their field and transfer or adapt them to the classroom environment, whether they are scientific or technological. Because innovation is a notion that is closely related to knowledge, it is expressed as knowledge sharing, the improvement of individual literacy, and the level of innovation (Işık, 2018; Özen, Özkaptan, Akyar, & Terzioğlu, 2020).

Besides, in related literature, innovative teachers are often indicated as the teachers who have awareness of self-development and self-renewal abilities (Bakır, 2022; Tezcan, 2019; Bahar-Güner, Tunca, Alkın-Şahin, & Oğuz, 2015). These characteristics are emphasized in that they are prone to some factors, such as information technologies, learning, development, and collaboration, but can overcome them by pursuing and reflecting on their lessons (Kocasaraç, 2018). Therefore, teachers and pre-service teachers can be innovative and effectively guide the learners by keeping themselves current both in information and technology (Kocasaraç & Karataş, 2018; Tomal et al., 2019).

One of the themes obtained within the study is *Guiding Students*. In literature, this feature is defined as guiding the learning lives of learners in terms of teachers' responsibilities and duties (Yanpar-Yelken, 2017). According to the supporting findings in the literature, innovative teachers were frequently described as those who supported individual development, offered alternative ways, and took students forward, guiding them for the future (Çulha-Özbaşı & Aktekin, 2013; Bahar-Güner, Tunca, Alkın-Şahin, & Oğuz, 2015; Duman, 2018; Yalçın-Wells, 2015; Saban, 2004). This finding is also consistent with the findings of "Preparing Students for the Future" by Kocasaraç (2018) based on the qualities of innovative teachers. So, we can say that the teacher's guidance of students is an important factor in being an innovative teacher.

In the literature, the themes of *Building Positive Relationships and Communication with Students* are seen as the achievement of communication skills depending on the nature of the language and the type of speech activity. To achieve this goal, the teacher-student relationship should be established based on mutual respect, and the lesson should be organized in the same direction (Bolibekova, Juraeva, Kakharova, & Nazarova, 2021). While it plays an important role in dealing with students' self-esteem, inner thoughts, and feelings (Borich, 2017), it is also a supportive factor for the teacher to create a learning environment in the classroom and school environments (Çoban, 2021). When the teacher can create a positive interaction and communication environment in the classroom, the student can express their ideas and thoughts more easily, making it easier to share interpersonal information (Fulk & Yuan, 2013), and can easily transfer their ideas, experiences, and concepts to the practices of lessons (Borich, 2017). As a result, innovations can progress in a process that involves sharing information through communication and social networks rather than being the product of a single intelligence (Turgut & Begenirbaş, 2013). This is the way to build new ideas and innovative practices.

The Digital Literacy and Competence theme is addressed in terms of the internet and instructional technologies that affect education in the 21st century and serve an important function in structuring student needs (Borich, 2017). From the viewpoint of teaching and learning, technological applications are a supporting factor in the development of 21st-century skills, with the option of using language and other forms of its representation so that learners can communicate authentically (Black, 2009). When it is called the 21st century, technology and digital devices are the first things that come to mind, and they are indispensable factors for the learners to become 21st-century learners (Zeybek, 2021). The same is true for innovation as well. When talking about innovation, the first thing that springs to mind is the technology and its effective use of it in the classroom (Naifeld & Simon, 2017). So, the innovative teacher is described as a person who can use available technology and digital devices actively (Kayabaşı & Özerbaş, 2019; Yavuz-Konokman et al., 2016; Tomal et al., 2019; Tura & Akbaşlı, 2021).

In the study, the preservice teachers were asked about areas in which they needed to improve themselves to become innovative teachers. At the end of the analysis, six different themes were identified. These categories are, Pedagogical Content Knowledge, Digital Competency, Professional Content Knowledge, Communication Skills, Interdisciplinary Knowledge and Instructional Technologies-Materials Design. *Pedagogical Content Knowledge* is about how problems or topics are organized, described, structured, and applied according to the students' needs, interests, and abilities in a field (Shulman, 1987). Considering the 21st-century skills, the related studies showed that pre-service teachers' self-efficacy knowledge is positive in line with the PCK theme, which is in the frame of the TPACK (Technopedagogical Content Knowledge) (Bayer, 2019; Şimşek, 2016; Kurt, 2016). Designing pedagogical content knowledge is effective for the teacher and the learner, if it takes into account innovative teaching and learning units based on language principles (Orton & Cui, 2016). Besides, innovation is important for the improvements of available applications, the re-evaluation of learning, the determination of teacher-student expectations, features, and a review of the curriculum as well (Moloney & Xu, 2016).

Digital Competency is addressed as a community of knowledge, skills, and attitudes depending on creativity, knowledge management, individual development, daily life, work, personal privacy, security, and legal areas (Janssen, Stoyanov, Ferrari, Punie, Pannekeet & Sloep, 2013). This can be developed with a holistic approach within the competencies of all stakeholders as teacher-learners and society (Bozkurt, Hamutoğlu, Liman-Kaban, Taşçı & Aykul, 2021). In terms of innovation, digital technology can reduce education inequality, increase accessibility, and provide people with unique teaching-learning experiences (OECD, 2022). In parallel with another theme of Professional Content Knowledge, teachers have an awareness of its importance and contribution (Eroğlu & Özbek, 2020). Therefore, professional development is closely related to whether they adopted innovation or not (Webster, Mindrila, Moore, Stewart, Orendorff, & Taunton, 2020), so their professional development discussed interrelated topics such as innovation, diversity, currency, technology, knowledge, speed, and active and producer factors (Sarıdaş & Deniz, 2018).

Another theme obtained within the study is *Communication Skills*. According to the pro-service teachers, a teacher is capable of reflecting understanding, sincerity, respect, and mercy to their students (Tezcan, 2019). Rather than mass media, innovative teachers prospective usage of computers in their lessons and their preferences for interpersonal communication have a positive relationship with acquiring new knowledge and learning paths (Yılmaz, 2013). It is seen that these findings have supporting findings obtained from the study called "Teacher and Ideal Teacher" by Kara (2020), in which qualities of teachers were respectively categorized as; "Cultivator/Developer", "Information Source", "Dandler and Guardian", "Guiding", "Illuminator", "Self-renewer and Self- improving Person", and "Leader".

Interdisciplinary Knowledge is closely identified with the development of meaningful, creative, comprehensive understanding and rethinking skills in terms of intercultural language learning and teaching (Byrd Clark, 2016). Interdisciplinary knowledge and learning experiences make a positive difference by establishing meaningful connections by using different viewpoints from various study fields (Eflanili, 2021). Previous studies findings in line with the 21st-century skills stated that interdisciplinary knowledge is important to find solutions for problem solving (Ergün & Kıyıcı, 2019), and different educational practices, professional support, and teamwork contribute to the creativeness of teachers and students to improve innovation as well (Braßler & Schultze, 2021). In addition, teachers and students can make progress in critical thinking, communication, creativity, pedagogy, and professional fields by using interdisciplinary techniques (Jones, 2010). Thereby, the teaching experiences that teachers can create by adopting authentic materials and positive teamwork with their colleagues can improve students' understanding of different subjects and enable students to be supported, creative students, and well-learners (Deneme & Ada, 2012). As the findings and previous studies showed, interdisciplinary knowledge or approaches are needed as characteristics of innovative teachers.

Instructional Technologies and Material Design theme relate to the materials used to improve effectiveness in education; the addressing of different learners' needs is another factor that is emphasized in the structuring of multiple learning experiences and the creation of high-level learning experiences (Tan, 2019; Taşpınar, 2020). Therefore, instructional technology applications are a supporting element in increasing the quality of learning, creating an interactive learning environment, and keeping students' attention alive (Basaran, 2020). Because the responsibility of being procreative individuals in the digital age and preparing them for 21st-century skills requires the individuals to be constantly renewed professionally, pedagogically, and effectively using digital

technologies to improve these two skills (Karakuş-Yılmaz, 2020). When considered from this point of view, along with the guiding tasks, it is important for the teachers to provide the opportunity to guide students' learning lives too (Sadık, Ergüleç, & Oktay, 2020). Positive perceptions of teachers towards instructional technology (Göksu & Koçak, 2020) are associated with their innovative level, designing innovative materials, and their perceptions of the notion of innovation. These are discussed under the category of "Innovation Producing" (Yavuz-Konokman, Yokuş, & Yanpar-Yelken, 2016). It is not incorrect to state that the most important innovative areas in which pre-service teachers must improve in order to become innovative teachers are pedagogical content knowledge, digital competence, professional content knowledge, communication skills, interdisciplinary knowledge, and instructional technologies-material design. Consequently, considering ISTE teachers' standards, the usage of technological tools, their integration into lessons (Bozkurt & Cilavdaroğlu, 2011), pedagogical content knowledge structured in line with students' needs, innovative teaching methods and techniques (Kaya & Yılayaz, 2013), individual innovation, techno-pedagogical education competences (Çuhadar, Bülbül & Ilgaz, 2013), evaluation, selection of information sources, taking into account technological innovations, and sustainable professional development are also related to innovation (Kelly & McAnear, 2002; Şimşek, 2016). Besides these, the development and evaluation of a curriculum in line with innovation and change is also related to teachers' innovative approaches and their integration of technology into lessons (Yılmaz & Kocasaraç, 2010).

This study is limited to the views of English and German pre-service teachers who tried to determine innovative teacher features from their perspectives. However, compared to the other studies in the literature, the characteristics of the innovative teacher were considered from different perspectives, and many themes of the study found similar findings in the literature. Considering each of the themes in the context of the innovative teacher features, the study determined some features and clues about what areas pre-service teachers should develop themselves to be innovative teachers. As a result of its findings, this study is believed to have contributed to the field by identifying these features from a wider and different perspective. In line with the research findings, the following conclusions can be made: Instructors in teacher training institutions may focus more on the innovational developmental needs of pre-service teachers in their courses. Technology, instructional materials, innovative activities and techniques, and more social and sincere relationships should be built into courses in teacher training institutions to improve the innovativeness level of pre-service teachers. For a clearer understanding of the innovativeness of teachers and pre-service teachers, experimental or correlational studies can be done to test the effect of different variables on the innovativeness level of teachers and students.

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