



## Program Proposals of Pre-Service Teachers for the Lifelong Learning Needs of the Society

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### Article Info

### ABSTRACT

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The purpose of this study is to present lifelong learning program proposals based on an event or phenomenon that pre-service teachers have experienced. The research is a qualitative study and phenomenology was determined as the research design. The study group consists of 62 pre-service teachers studying at the education faculty of a state university. Criterion sampling method was adopted. 4 demographic (gender, age, department and grade level) questions were asked in order to obtain the program proposals of the pre-service teachers for the lifelong learning needs of the society and the participants were asked to make a lifelong learning program proposal by describing the event or phenomenon they experienced. The data obtained were collected online in the 2020-2021 academic year. The analyzes were carried out by the researchers. Frequency analysis was done for the lifelong learning programs proposed by the participants and the lifelong learning programs recommended by the participants and the experienced events or phenomena were coded by content analysis. It was seen that computer course (N=7) and farming education (N=7) come to the fore among the lifelong learning programs proposed by the participants. It was determined that the lifelong learning programs proposed by the participants were related to profession, technology, personal development, health and environment, handicrafts, education, law, art and sports. Based on the findings, it can be said that the need for lifelong learning is closely related to the conditions of the society and the environment in which they live.

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## INTRODUCTION

Beginning in the late 1980s, the term of lifelong learning has become a central principle of European education policy (Stromquist, & Da Costa, 2017). Although the concept of lifelong learning has been universally accepted, the debates about its evolution and the forms it emerged in the early 20th century continue to attract great attention (Owusu-Agyeman, 2017). More recently, both economists and business leaders thought that vocational training, instead of lifelong learning, would provide a greater return on investment (Roche, 2017). Today, within the scope of the European Union (EU), there are some issues such as expression of social and economic problems as a result of demographic changes, increasing economic global competition and the pressure created by migration. These factors have led policy makers to emphasize vocational and market-driven adult education and lifelong learning (Stromquist, & Da Costa, 2017). In addition, lifelong education and/or learning has played a very important role in agreements between states, international and supranational organizations (Lima, & Guimarães, 2011a).

According to lifelong learning, people learn not only in schools and universities, but also in common and informal means throughout their lives (Steffens, 2015). According to another definition, it means the learning which starts in the cradle and goes beyond the grave (Biao, 2015). The European Commission (2001) defines lifelong learning as *all learning activities experienced throughout life to increase knowledge, to develop skills and to obtain competence from a personal, civic, social and/or employment-related perspective* (Steffens, 2015).

It can be stated that lifelong learning is a learning that covers informal, non-formal and formal education areas (Biao, 2015; Owusu-Agyeman, 2017). However, it should be added that lifelong learning is much more than retraining or on-the-job training: it is a response to students' demands for "tailor-made" and even personalized education (van der Zwaan, 2017). In line with all definitions, there is not an accepted definition of lifelong learning and the term is interpreted as raising a workforce that can adapt to the rapidly changing world in the Age of Learning (Sharples, 2000). As a matter of fact, the emerging paradigm change from "learning" to "lifelong learning" is overwhelmingly suggested as a necessary response to the information explosion situation in current times of change (Su, 2015).

Looking at its definition, lifelong learning; it covers the entire field of education, including basic education, basic continuing education and continuing education at the university (Dinevski, & Dinevski, 2004). Indeed, lifelong learning can be broadly compared; it takes the ever-present dimensions of learning such as adult learning, non-formal and informal learning and offers conceptual space for many new learning modes emerging in the Information Age (Roche, 2016). In addition to its informal aspect, lifelong learning also has aspects of non-formal education (planned but flexible) and formal education (planned but with strict measures) (Biao, 2015). In addition, the boundaries between formal and non-formal learning should be removed or at least made more permeable to facilitate the transition from education systems to lifelong learning systems and ultimately to the learning society (Roche, 2017).

Some articles, books, preliminary articles and policy reports have been written and still being written on lifelong learning. The number of lifelong learning models defined by different scientists varies according to the perspective they have to look at the phenomena and the criteria for distinguishing different education and learning concepts (Regmi, 2015). From this point of view, it can be underlined that lifelong learning is a very general concept. It applies to all learning activities that individuals participate in throughout their lives, in formal (school and university), non-formal education settings (other forms of institutionalized learning) or informal settings (at home, with peers' family members). Therefore, it seems impossible to choose a learning theory that can explain all forms of lifelong learning. However, recently, new theories that may have an impact on the understanding of lifelong learning have been suggested (Steffens, 2015).

In general, it can be stated that the goal of lifelong learning is on learning at different life stages (Tucket, 2013). In this context, for many people, lifelong learning can be seen as a goal in itself, a very important basis for an individual's personal satisfaction. Lifelong learning appears to be necessary to find, maintain and thrive in a job. It also contributes to employees' coping with unemployment and early retirement, and accessing and re-accessing job opportunities (Charungkaitikul, & Henschke, 2014). In this context, the shift of human consciousness and discourse from "learning" to "lifelong learning" means a change in the basic nature of learning (Su, 2015).

Lifelong learning may have an important protective affect by keeping adults close to the changing labor market and potentially provide a way out of poor labor market experience (Evans, Schoon, & Weale, 2013). In addition, lifelong learning can play an important role in reducing widespread tensions between economic competitiveness policies and social cohesion policies (Green, 2011). In the 21st century, global demands for economic competitiveness and social cohesion, the application of information technologies for interactive communication and related learning, and a growing awareness of the need for lifelong learning strategies come together to ensure sustainable economic and societal development (Charungkaitikul, & Henschke, 2014). For lifelong learning to contribute to global goals, there needs to be a strong re-emphasis on the role that education can play in raising informed and active citizens who can address all the social, economic and ecological changes they face (Tucket, 2013).

The modern use of lifelong learning seems to have become a global trend, demonstrating the need for learners of all ages to continue education and learning (Su, 2015). Indeed, the lifelong learning approach has gained currency through attempts to use it as a way to provide people with the knowledge and skills they need to succeed in a rapidly changing world (Sharples, 2000). At the same time, many education providers still advocate education and the concept of lifelong learning as providing access to self-actualization and a fun social life (Stromquist, & Da Costa, 2017). It is argued that lifelong learning is good at the stages of a learning life that interacts for the benefit of each, clearly being the catalyst for achieving other positive social achievements (Tucket, 2013). It is also worrying that a quarter of the adult population still misses out on the enjoyment and success of lifelong learning (Fryer, & Barber, 2000).

Lifelong learning systems in liberal countries is thought to produce highly unequal skill outcomes which tend to strengthen income inequality and damage social cohesion (Green, 2011). In this sense, it is thought that lifelong learning will not basically redefine life trajectories for the majority of its participants (Evans, Schoon, & Weale, 2013). However, in many places, lifelong learning policies are increasingly utilitarian (Tucket, 2013). People can benefit from lifelong learning since being talented and competent refers to having better jobs and more incomes (Regmi, 2015). Moreover, lifelong learning makes it possible to renew one's knowledge and catch up with the latest developments in all areas of human endeavors and life (Biao, 2015). Lifelong learning should play a key role in ensuring sustainability strategies that involve the active participation of affected people. In this regard, it is important to help shape the changing economic and social conditions necessary to ensure sustainability for all in a climate-changing society. In addition, measuring this participation should be an element of the goal (Tucket, 2013).

The basic assumption of Fischer and Konomi (2007)'s approach to lifelong learning is as follows: if the world of work and life is based on collaboration, creativity, framing problems, dealing with uncertainty, change and distributed cognition, then education needs to prepare students for meaningful and productive lives in such a world. In addition, the main premise of lifelong learning is that it is not possible to equip students at school, college or university with all the knowledge and skills they need to develop throughout their lives (Sharples, 2000). In this context, the term lifelong learning should be taken literally, no longer just as something that corrects early-onset academic failure after school, but as a journey in which the years of compulsory education play an important role (Breslin, 2016). In addition, increasingly, education administrators, head teachers, teachers and some school administrators

are realizing that lifelong learning interests them, but there is still a long way to go (Fryer, & Barber, 2000). In this sense, education, as a profession, necessitates to establish deep relations with stakeholders (Saltalı-Durmuşoğlu, 2021).

From a humanistic perspective, lifelong learning should develop individuals' knowledge and skills in an environment that supports individual freedom, autonomy, participatory practices and trust (Owusu-Agyeman, 2017). In addition, lifelong learning is based on a strong criticism of the school and the fact that for over three decades the education systems of many countries have failed to meet people's expectations for upward social mobility (Lima, & Guimarães, 2011b). However, when the phenomenon of lifelong learning is examined more in current times of change, it seems important that it is not simply understood as equivalent to the continuity of learning for learners of all ages (Su, 2015). Within the context of this study, it was aimed to present lifelong learning program proposals based on an event or phenomenon that pre-service teachers have experienced. For this purpose, the research question below is addressed.

1. What are the lifelong learning programs proposed by pre-service teachers based on their experiences?

## **METHOD**

In this section, the research design, study group, data collection tool, data collection, data analysis and validity and reliability are presented below under separate subheadings.

### **Research Design**

The research is a qualitative study and phenomenology, one of the qualitative research designs, was determined as the research design. Phenomenology was used to uncover the nature of a phenomenon by discovering it from the perspective of individuals who experienced it in order to find out the meaning of the phenomenon (Teherani et al., 2015). In this context, pre-service teachers were asked to describe an event or phenomenon they experienced and propose a lifelong learning program (for example, farming education) based on this event or phenomenon. The most important purpose here is to enable pre-service teachers to observe the environment they live in and be aware of the learning needs of the society.

### **Study Group**

The study group of this research, which aims to obtain program recommendations from pre-service teachers for the lifelong learning needs of the society, consists of 62 pre-service teachers studying at the education faculty of a state university. Criterion sampling method (Patton, 2002), one of the purposeful sampling types, was adopted in the formation of the study group, and being taken or having been taken the "Adult Education and Lifelong Learning" course as an elective course was determined as a criterion.

When the demographic information of pre-service teachers is examined; in terms of gender, 41 (66.13%) were female and 21 (33.87%) were male; in terms of age, 15 (24.2%) were 20 years old, 18 (29.03%) were 21 years old, 10 (16.13%) were 22 years old, 3 (4.84%) were 23 years old, 2 (3.23%) were 24 years old and 14 (22.58%) were aged 25 and over; in terms of department, 21 (33.87%) preschool education students, 14 (22.58%) social studies education students, 14 (22.58%) guidance and psychological counseling students, 7 (11.29%) Turkish education students, 5 (8.06%) classroom education students and 1 (1.61%) science education student; in terms of grade level, 8 (12.9%) are 2nd year students and 54 (87.1%) are 3rd year students.

### **Research Instruments and Processes**

4 demographic (gender, age, department and grade level) questions were asked in order to obtain the program recommendations of the pre-service teachers for the lifelong learning needs of the society

and the participants were asked to make a lifelong learning program proposal by describing the event or phenomenon they experienced. The main purpose of getting program proposals from the participants and asking them to talk about the event or phenomenon is to enable pre-service teachers to discover their environment and the lifelong learning needs of the society they live in. In the data collection tool, an answer was sought for the following statement: Tell an event or phenomenon that you have experienced and suggest a lifelong learning program (for example, farming education) based on this event or phenomenon.

In order to obtain data within the scope of the research, an application was made to the Scientific Research and Publication Ethics Committee of Muş Alparslan University, and the research was evaluated in terms of ethical principles with the decision number 8 taken at the meeting number 2 dated January 14, 2021. The data obtained were collected online in the 2020-2021 academic year, both in the fall and spring terms, through the Google Forms application due to the pandemic process.

### **Data Analysis**

The answers entered in Google Forms by the participants were transferred to the word processing program by the researcher, and the necessary arrangements were made by examining them in terms of spelling. The analyzes were carried out by the researchers using NVIVO. The lifelong learning programs proposed by the participants were subjected to frequency analysis, and the lifelong learning programs suggested by the participants and the experienced (seen or lived) events or phenomena were coded by content analysis, the program names written by the participants were used as direct codes in some cases, and the thematic process was carried out. As part of the privacy of the participants, each participant was given an abbreviation and code number instead of a code name. E.g; KG5: Fall semester participant number 5, KB10: Spring semester participant number 10...

### **Validity and Realibility**

In order to ensure the validity of the data obtained from the study, the "thick description" (Guba, & Lincoln, 1982) method was chosen. In other words, the statements of the participants were presented directly, without adding comments in the findings section. After the coding and thematic process, the answers given by the pre-service teachers and the codes given by the researcher to these answers were sent to a faculty member (assistant professor) who teaches the "Adult Education and Lifelong Learning" course. In this context, the reliability formula that Miles and Huberman (1994) brought to the literature was used to calculate the inter-coder reliability of the research:  $\text{Reliability} = \frac{\text{Consensus}}{\text{Agreement} + \text{Disagreement}}$ . While consensus was reached in 65 of 72 codes between the other coder and the researcher, disagreement emerged in 7 of them. When the calculation was made according to the relevant formula, the reliability of the research was found to be 90%. If the reliability calculation exceeds 70%, it is considered that the research is reliable (Miles & Huberman, 1994).

### **FINDINGS**

The data were obtained from 62 pre-service teachers studying in the departments of Turkish Education, Preschool Education and Classroom Education in the fall semester of the 2020-2021 academic year, and in the departments of Science Education, Social Studies Education, Guidance and Psychological Counseling Departments in the spring semester of the 2020-2021 academic year. When the data are analyzed, it is seen that in total, 20 pre-service teachers proposed a lifelong learning program that takes the needs of the society into consideration, but they did not make any explanations and mention about any event or phenomenon. On the other hand, it was seen that 42 pre-service teachers made statements and mentioned about an event or phenomenon in addition to proposing a lifelong learning program that takes the needs of the society into consideration. The lifelong learning program proposals of the 62 pre-service teachers, the number of proposals (N) and the codes obtained related to the participants' proposals are presented in Table 1 below.

**Table 1.** *Lifelong learning programs proposed by the participants*

<b>Proposed Program</b>	<b>N</b>	<b>Participant Codes</b>
Computer course	7	KG4, KG9, KG12, KB1, KB4, KB13, KB22
Farming training	7	KG2, KG13, KB1, KB3, KB5, KB10, KB18
Sewing embroidery course	4	KG3, KG7, KG31, KB1
Technology education	3	KG5, KG12, KB6
Foreign language education	3	KG16, KG33, KB16
Literacy course	3	KG32, KB1, KB15
Parent education	3	KB3, KB20, KB24
Beekeeping education	3	KB5, KB26, KB28
Health education	2	KG1, KB17
Hygiene education	2	KG6, KG10
Diction training	2	KG8, KG24
Animal husbandry training	2	KG18, KB10
Human rights education	2	KG22, KB14
Childcare education	2	KG29, KB19
Hairdressing course	1	KG7
Instrument course	1	KG9
Disaster education	1	KG11
Business training	1	KG14
Defense training	1	KG15
Entrepreneurship education	1	KG17
Occupational health and safety training	1	KG19
Risk analysis training	1	KG20
Recycling education	1	KG21
Combating Violence training	1	KG23
Distance education course	1	KG25
Time management education	1	KG26
Heating fire course	1	KG27
Carpet weaving course	1	KG28
Bakery products training	1	KG30
Motivation education	1	KB2
Activity-oriented courses	1	KB2
Quran course	1	KB7
Environmental education	1	KB8
Textile production, sales and machine training	1	KB9
Traditional shoes training	1	KB11
Communication education	1	KB12
Vocational training	1	KB21
Tulip breeding training	1	KB23
Barbering course	1	KB25
Furniture education	1	KB27
Tailoring training	1	KB29

When Table 1 was examined, it was seen that 62 pre-service teachers proposed 72 lifelong learning programs, but 41 of the 72 lifelong learning programs differed. It can be stated that the reason for 72 program proposals out of 62 pre-service teachers was that the same participants made more than one program proposal.

The findings showed that computer course (N=7) and farming education (N=7) come to the fore among the lifelong learning programs proposed by the participants. The other programs proposed by the participants were as follows: Sewing embroidery course (n=4), technology education (n=3), foreign language education (n=3), literacy course (n=3), parent education (n=3), beekeeping education (n=3), health education (n=2), hygiene education (n=2), diction training (n=2), animal husbandry training (n=2), human rights education (n=2), childcare education (n=2). Each of the other lifelong programs was proposed by one participant.

The fact that the computer course comes to the fore is closely related to the current pandemic process. Farming training is another lifelong learning program that is mostly proposed, which is thought



to be caused by the fact that the geography where the data were collected is mainly based on agriculture.

In Table 2, the lifelong learning programs proposed by 62 pre-service teachers are grouped under themes in line with the explanations and comments of the participants.

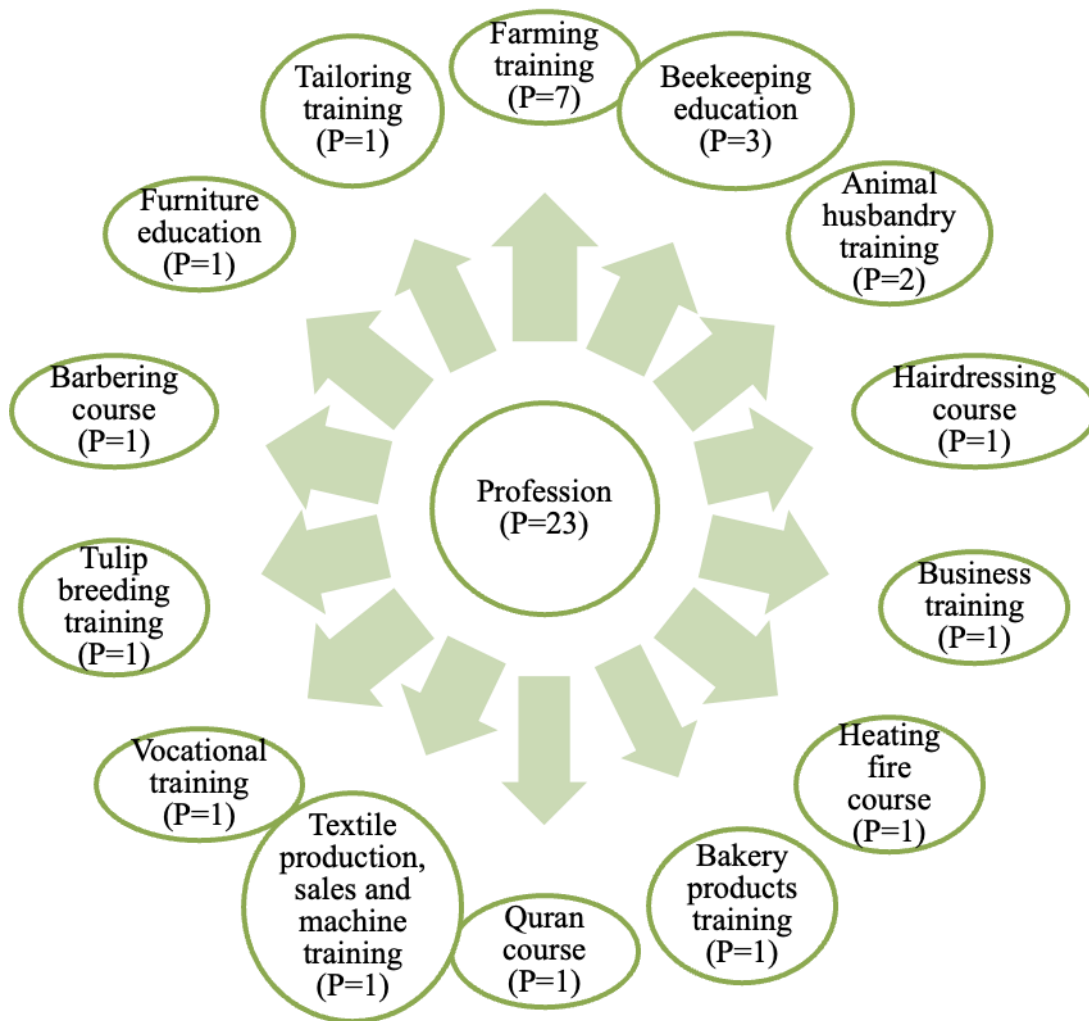
**Table 2.** Themes created for the proposed lifelong learning programs

Theme	Proposed LLL Program (Code)	n
Profession	Farming training, beekeeping education, animal husbandry training, hairdressing course, business training, heating fire course, bakery products training, Quran course, textile production, sales and machine training, vocational training, tulip breeding training, barbering course, furniture education, tailoring training	23
Technology	Computer course, technology education, distance education course	11
Personal Growth	Parent education, diction training, entrepreneurship education, risk analysis training, time management education, motivation education, communication education	10
Health and Environment	Health education, hygiene education, childcare education, disaster education, occupational health and safety education, recycling education, environmental education	10
Handicrafts	Sewing embroidery course, carpet weaving course, traditional shoes course	6
Education	Foreign language education, literacy course	6
Law	Human rights education, combating violence training	3
Art and Sport	Instrument course, defense training, activity-oriented courses	3

As can be seen in Table 2, the lifelong learning program proposals (code) of 62 pre-service teachers that takes the needs of the society into consideration, and the experiences mentioned by the pre-service teachers are classified under eight themes as profession, technology, personal growth, health and environment, handicrafts, education, law, and art and sports.

When the lifelong learning programs proposed by the participants were examined, it was noteworthy that most of the participants (n=23) put forward the program (code) related to the profession theme, which was followed by technology (n=11), personal growth (n=10), health and environment (n=10), handicrafts (n=6), education (n=6), law (n=3) and art and sports (n=3) themes.

Regarding the mentioned themes, the striking comments, explanations and experiences of the pre-service teachers were examined separately by giving direct participant quotations.

**1st Theme: Profession**

**Figure 1.** Lifelong learning program proposal in the context of profession theme

The findings showed that farming training, beekeeping education, animal husbandry training, hairdressing course, business training, heating fire course, bakery products training, Quran course, textile production, sales and machine training, vocational training, tulip breeding training, barbering course, furniture education, and tailoring training codes were obtained under the theme of *profession*, and 23 participants expressed their opinions related to the mentioned codes. Some of the statements of the participants are as follows:

*“Unfortunately, women in our community are not in the position they deserve. For example, I saw a woman who wanted to work, but her husband did not allow her to work with the logic that she is a woman and women should stay at home. For this, I think that hairdressing courses and sewing and embroidery courses should be widely active for women.” (KG7-Hairdressing course)*

*“One of the livelihoods in the villages is animal husbandry. For this reason, one of our biggest occupations is animal husbandry. For this, we constantly get some information from people who have strong knowledge about sheep and animal husbandry, and we gain knowledge and skills by applying this information.” (KG18-Animal husbandry training)*

*“I work in the bakery products industry. Most masters, journeymen and apprentices trained in this sector are incompetent. They do their job, but by heart. In case of any mishap, most of them do not have an idea about the source of this mishap, so a lifelong learning area can be opened as bakery products training.” (KG30-Bakery products training)*



*“We are providing Quran course. When we give Quran education to people, they pray constantly. There were adults who felt bad about not being able to learn about their religion as Muslims.” (KB7-Quran course)*

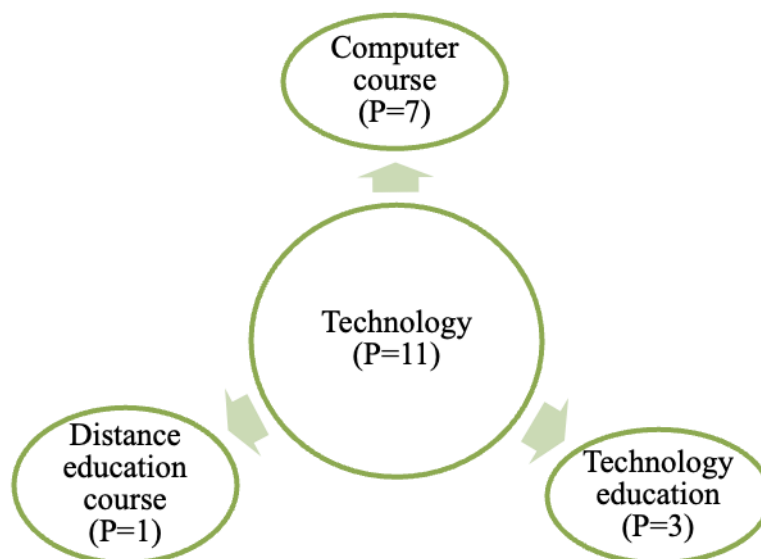
*“Traditional agriculture and animal husbandry are practiced in our region. Our society has great shortcomings in this regard. We either do not know the income to be obtained with modern methods or we do not know how to do it, if applied training is given, the society will have experiences by living and will be more sensitive in this regard. (KB10-Farming training)*

*“I live in the province of Muş. Muş is known for its tulips, but we come across very few tulips. I think this is due to the fact that many people have no knowledge of tulip cultivation. By starting a tulip breeding course, both continuity is ensured and new job opportunities are created.” (KB23-Tulip breeding training)*

*“Especially needs-oriented training should be given. I think beekeeping education is important, because it is done unconsciously. So, both the efficiency is low and many hive bees can die meaninglessly at once. The care of this sensitive animal species requires different and serious efforts. For example, I bought a hive of bees in one spring, and these bees became eight hives by the method of reproduction called as swarming. In this process, I was doing beekeeping with what I learned from different internet resources from the virtual world. But when it was autumn, I obtained much less honey than a beehive should yield. When it was winter, only one hive was left out of eight bees, and all the remaining bees had died because in winter they had to stay at a certain temperature, while at the same time there had to be as little noise as possible for them to hibernate. Of course, I learned this later. I learned a lot of similar things. As I mentioned before, it requires very different efforts, so these problems can be eliminated with lifelong learning.” (KB26-Beekeeping training)*

When the statements of the participants in the context of *profession* theme were examined, it was seen that participants mentioned about some courses such as farming training, beekeeping education, animal husbandry training, hairdressing course, business training, heating fire course, bakery products training, Quran course, textile production, sales and machine training. They were in the opinion that there should be courses for every segment of society and that individuals living in the society need courses for their personal developments. It can be concluded from these statements that the needs for courses were shaped based on the living conditions of the society.

## 2<sup>nd</sup> Theme: Technology



**Figure 2.** Lifelong learning program proposal in the context of technology theme

The second theme that emerged in the study was *technology*, and under this theme computer course,

technology education and distance education course codes were obtained. 11 participants stated their opinions about these codes as follows:

*“How should technology be used? There may be a training program for this. We are in the 21<sup>st</sup> century. We say that we are in the age of information, informatics and technology. Unfortunately, there are wrong uses of technology as well as its correct use. Especially families are unaware of this issue. The unconsciousness of the family causes the child or young person to be ignorant and unconscious about this issue. Not only young people, but also adults spend most of their time on social media, such as Instagram and TikTok, which is useless and only waste time. If people read books instead of spending their time on such things, they will both improve themselves and set a good example for the next generation. To give an example from my close circle, although my uncle’s son is very young, he has a slip in one eye because he is constantly given the phone and other technological devices. As the reason, it is shown that he deals with excessive technological tools and is involved with them. For this reason, such a training program can be established both in Muş and in other cities of the country and even in the world. By creating such a course, education can be given to families first, and then to young people, about what technology is and how it should be used. Awareness can be created in the society on this issue.” (KG5- Technology education)*

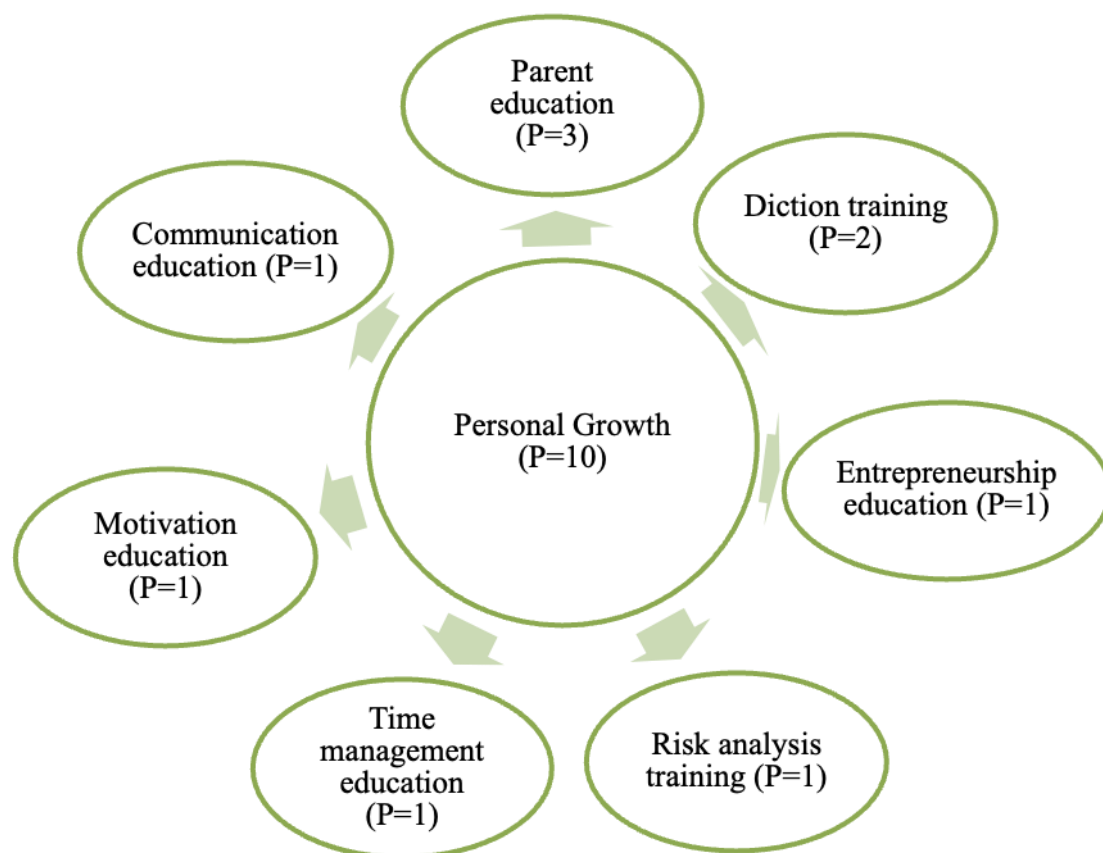
*“I haven’t experienced it, but I think “computer management course” or “computer course” has become a necessity of this century. I also think that instrument courses such as guitar, baglama or drums courses are also necessary as a therapy of brisk life, both in terms of health and personal development.” (KG9-Computer course)*

*“I think a distance education lifelong learning program should be given to parents. In today’s conditions, the problem of this is obvious. Now it is clear that distance education will become a part of life.” (KG25-Distance education course)*

*“Due to the technological problems I experienced during the distance education process, I had a hard time at first because I did not have sufficient technology usage skills. Therefore, being able to attend a computer course can help me with my situation in this process.” (KB4-Computer course)*

*“As of today, I propose the computer education program as lifelong learning as a result of the development of technology and the use of information networks in many places, including government institutions, and the request for appropriate documents and documents.” (KB13-Computer course)*

When the participants’ opinions under *technology* theme were evaluated, it was seen that participants mentioned about some issues about technology. For example, they stated that the 21<sup>st</sup> century is the age of information and technology, technology could be used incorrectly, families had wrong information about technology use, they raised their children incorrectly in this regard, children and adults wasted time on social media and technology and it was important to raise awareness about the correct use of technology. It can also be said that participants mentioned about the importance of acquiring computer skills, the current age revealed that acquiring computer skills was a necessity and it was a necessity to acquire these skills, distance education processes had become a part of life, computer skills were an important necessity in distance education processes due to the advancement of technology and the widespread use of information networks in government institutions.

**3<sup>rd</sup> Theme: Personal Growth**

**Figure 3.** Lifelong learning program proposal in the context of personal growth theme

Under the theme of *personal growth*, another theme, parent education, diction training, entrepreneurship education, risk analysis training, time management education, motivation education and communication education codes were obtained, and 10 participants expressed their opinions on the mentioned codes. Some of the statements of the participants are as follows:

*“Diction training: Since there are different races and ethnic groups in my geography, every child first learns their mother tongue. Therefore, this education is an important need due to the inaccuracies in the pronunciation and swallowing of words while speaking Turkish, which is the official mother tongue of Turkey. In order to meet this need, various courses and departments should be opened.” (KG24-Diction training)*

*“Activity courses for housewives, motivation education due to the difficult pandemic process that we are in...” (KB2-Motivation training)*

*“In my opinion, parent education should also be given, because there are too many couples in our country who do not have knowledge about raising children.” (KB3-Parent education)*

*“There is no such thing as patience in the environment I live in, people have no tolerance for each other, and communication education will be very good.” (KB12-Communication training)*

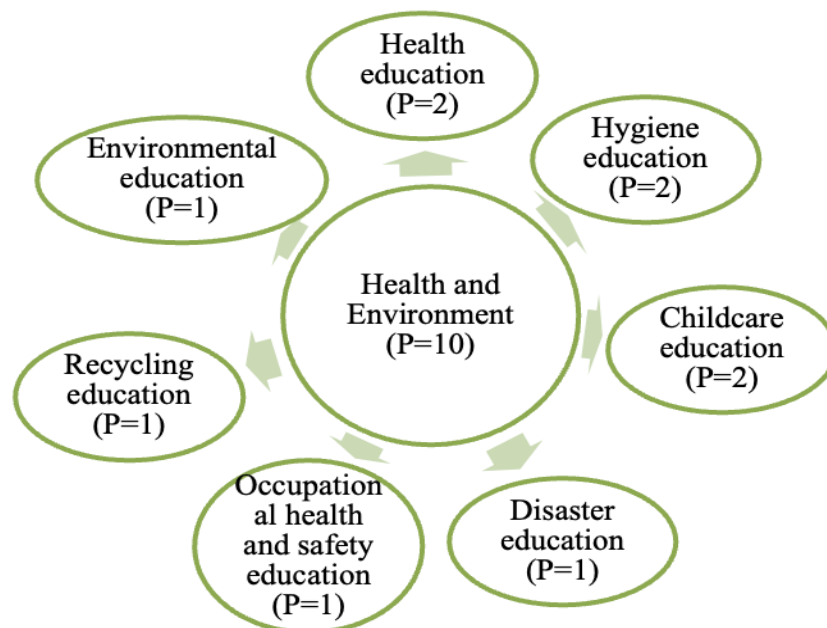
*“I think that families are very inadequate in raising children in the neighborhood I live in. Most parents try to raise their children according to traditional methods, and they ignore the developmental characteristics of the child. For this reason, I consider that parent education program is necessary.” (KB20-Parent education)*

*“There is a complaint that we hear all the time in life: Where is this youth going? Generation is*

getting worse. I remember from an article I read: There is such a site in one of the old inscriptions. The first people who can educate the generation are the parents. If the parents are conscious, the probability of the generation being conscious increases even more. I think the most important part we need to educate is parents. Today, we see that children who are brought up in a disinterested and unconscious way, unfortunately, do not become good individuals. For this, we have to educate people, parents.” (KB24-Parent education)

The participants who expressed their opinions within the scope of the theme of *personal growth* stated that there were problems such as pronunciation and word swallowing when speaking the official mother tongue since the geography contained different ethnic elements, the motivation of housewives for life should increase due to the pandemic process, married couples had important deficiencies in the context of raising children, individuals in the society had problems with each other. They also underlined that parents living in the region they worked in had no tolerance for their children, many families raised their children with traditional methods and did not care about their children’s developmental characteristics, and therefore families should be educated in order for children to grow up as good individuals. Lastly, they emphasized that families were in the key position for raising their children in a good way.

#### 4<sup>th</sup> Theme: Health and Environment



**Figure 4.** Lifelong learning program proposal in the context of health and environment theme

Health education, hygiene education, childcare education, disaster education, occupational health and safety education, recycling education and environmental education codes are included under *health and environment* theme, and 10 participants shared their views on the mentioned codes. Some of the opinions of the participants are as follows:

“There are many people who do not take into account the serious health problems we experience and ignore them. The majority of people persistently breaks the rules and behaves insensitively, even while walking on the streets, in the markets, at the cash registers. Personally, I encounter this problem mostly while waiting in line at the market. I can even hear the breathing of the person behind me as I wait to pay for what I bought. I pull back a little, but the same thing continues. I get weird reactions when I warn them. It’s offensive to be warned by everyone for the same valid rules, but that’s not what people care about, unfortunately. In order to clarify such problems and to provide solidarity and support among people, information programs should be organized about the problem in question.” (KG1- Health education)

*“It is a situation I have experienced myself: When I was a paid teacher, parents would always come to me and ask about their children’s course status. Most of the parents were parents who did not pay attention to their personal care. When I saw those neglected teeth, my only goal was to send those parents in haste without vomiting. As such, I could not give detailed information about their children. For this reason, “hygiene education” should be given in order to add another topic to lifelong learning within the framework of personal care in order to ensure that people are accepted and socialized in the society. (KG10-Hygiene education)*

*“It is a disaster education program because I have encountered earthquakes in many places so far, and the people around me do not know what to do, so they are very scared, rushed and confused, and this may cost their lives, maybe not that day, but another time.” (KG11-Disaster education)*

*“Occupational health and safety because I can say that some workers work in very bad conditions and have problems in terms of occupational safety. Especially during this pandemic process, I see that some textile workers that I see around me have to work despite everything and that the places they work do not take into account adequate precautions and warnings in terms of health. Employers and workers need to be made aware of these and similar events.” (KG19-Occupational health and safety education)*

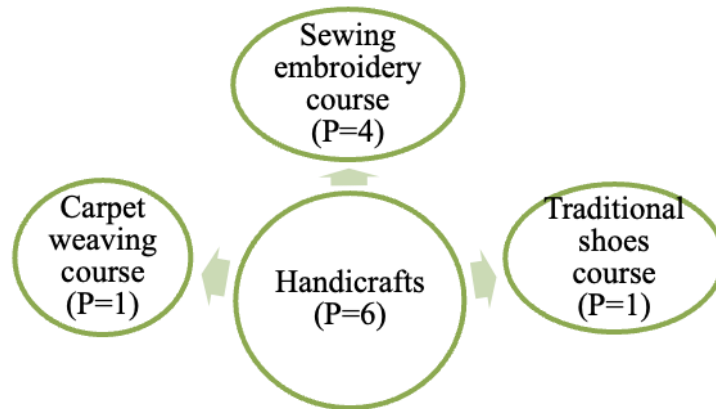
*“Recycling education: The reason why I propose this is because it is a subject that should be educated not only in our country but also in the whole world. The reason is that people brought the end of the world. Mistakes made because of ignorance. With training, these mistakes can be corrected. In this way, we will leave a clean world to future generations. There is nothing that cannot be solved with education.” (KG21-Recycling education)*

*“I think that environmental education is an education that people need in general. People are quite unconscious about the damage they cause to the environment and they do not accept this unconsciousness. For this reason, an education should be given in order to raise awareness of people about the environment.” (KB8-Environmental education)*

*“First aid, health services course, because nowadays health has become very important. Many people lack health information. Every segment, young or old, should have enough knowledge to protect themselves. Thanks to these health courses, awareness can be created in citizens.” (KB17-Health education)*

When the statements of the participants in the context of *health and environment* theme were examined, it was seen that participants mentioned about some issues related to health and environment. They were in the opinion that individuals did not care much about the health issue and they had incomplete information on this issue, the parents of the students did not pay enough attention to the hygiene rules, the individuals did not know how to act in the face of disasters and they were afraid in case of disasters, the workers had bad working conditions, there were serious problems in terms of occupational health and safety and employers did not care about these problems, it was important to leave a clean world to future generations, and recycling education was a point that concerned not only our country but the whole world, individuals were not sensitive to the environment, people acted unconsciously and it was necessary to raise awareness in the context of health in individuals.





**Figure 5.** Lifelong learning program proposal in the context of handicrafts theme

The fifth theme emerged as *handicrafts* and under this theme, sewing embroidery course, carpet weaving course and traditional shoes course were included. 6 pre-service teachers stated their opinions on this theme. Some of their statements are as follows:

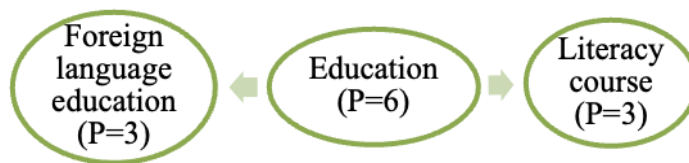
*“To give an example from my environment, our neighbor started a new business after going to a sewing and embroidery course and receiving training. After starting this business, she tried to encourage all women in the neighborhood to take a sewing and embroidery course. She taught them sewing embroidery processes and techniques at work. These women, who learned how to sew bed linens and sew fabrics together, gained economic power in their lives and managed to stand on their own feet with sewing and embroidery courses.” (KG3-Sewing embroidery course)*

*“Unfortunately, women in our community are not in the position they deserve. For example, I saw a woman who wanted to work, but her husband did not allow her to work with the logic that the women should stays at home. For this, I think that hairdressing courses and sewing and embroidery courses should be widely active for women.” (KG7-Sewing embroidery course)*

*“Because I reside in the province of Bitlis, I believe that the continuation of the traditional shoe craft, which is in its last days, should be ensured and such a deep-rooted legacy should be left to future generations. As a matter of fact, there is only one master who continues this branch of craft today. That’s why this course needs to be given under the name of lifelong learning urgently.” (KB11-Traditional shoes course)*

Some participants, who proposed a lifelong learning program within the scope of *handicrafts* theme, stated that his/her neighbor, who went to the sewing and embroidery course, started a business, and further directed the women around her to this course, and that the women became economically stronger after participating in the sewing and embroidery course. Additionally, the other participants mentioned that women were not valued enough in the society, in some cases husbands opposed the participation of wives in working life, therefore they supported the sewing and embroidery course, and that it was an important need to carry the traditional shoes craft that was in danger of being forgotten to the future.



**6<sup>th</sup> Theme: Education**

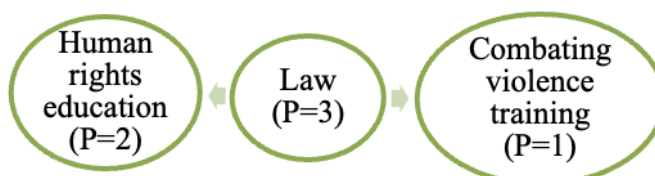
**Figure 6.** Lifelong learning program proposal in the context of education theme

Under the theme of *education*, which is another theme, there are foreign language education and literacy course codes, and 6 participants expressed their opinions regarding the mentioned codes.

*“My teacher, the effects of social life affect the place and people, so my teacher, we deal with agriculture, animal husbandry and trade in our region. Our President contributes to this issue, so I can say that the library, school, public education center are important in this regard. In other words, elderly, adults and some young people have difficulties in banks, hospitals or any other places, so they get sick, they can’t get an appointment, they need money but they can’t withdraw money from the bank. I have witnessed many incidents, so sometimes even if they are right in normal situations, they cannot make their defense because they do not know how to read or write or they do not know Turkish language, so I can say that language education and literacy are important in order to eliminate such negativities. In other words, I can say that courses, training programs and language training are important in order to prevent and eliminate these negativities.” (KB15-Literacy course)*

*“Foreign language courses can be opened apart from formal education. In formal education, more grammar-based education is given. That’s why, in the touristic places I go around, when our people are asked questions, they say they don’t know and run away. There’s nothing to talk about. Unfortunately, this is actually quite frustrating. In my opinion, it is very important to give foreign language courses in non-formal education with the focus of speaking and practicality in addition to grammar. The number of language courses aiming practice can be increased.” (KB16-Foreign language education)*

Participants who expressed their opinions under the theme of *education* stated that the elderly, adults or young people had problems in dealing with their jobs in various institutions and organizations, and that this problem was related to the lack of Turkish literacy or not knowing Turkish. They also underlined that foreign language education was carried out with a focus on grammar, whereas foreign language education should be given by focusing on verbal skills and making practice.

**7<sup>th</sup> Theme: Law**

**Figure 7.** Lifelong learning program proposal in the context of law theme

Under the theme of *law*, another emerging theme, human rights education and combating violence training codes are included, and 3 participants made explanations related to the mentioned codes.

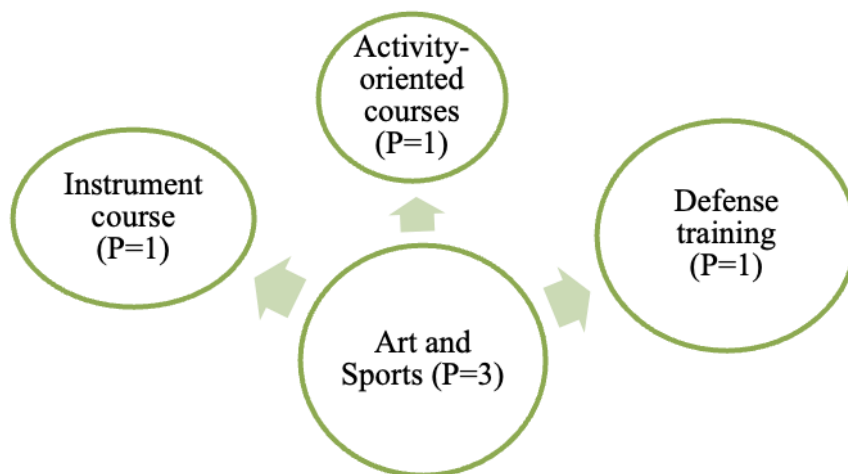
*“Since the rights of women and girls are not properly respected in my city, I can only suggest a*

program based on human rights rather than the rights of women and girls. As an example, the simplest way to limit the education rights of girls in Muş can be given.” (KG22-Human rights education)

“There are so many children and women who are exposed to violence and killed on television every day and unfortunately in our close environment, so adults should be made aware of this issue. Accordingly, training on combating violence against women and children should be included in lifelong learning programs.” (KG23-Combating violence training)

The participants, who proposed a lifelong learning program under the theme of *law*, mentioned the importance of providing an education based on human rights because the required sensitivity was not shown to the rights of women and girls and the barriers to girls’ education were removed, and it is necessary to provide education on combating violence because children and women were victims of violence and were killed.

### 8<sup>th</sup> Theme: Art and Sport



**Figure 8.** Lifelong learning program proposal in the context of art and sports theme

Under the theme of *art and sports*, which is the last theme that emerged in the study, there are codes for instrument courses, defense training and activity-oriented courses, and 3 participants reported their thoughts on the mentioned codes as follows:

“I haven’t experienced it, but I think computer management course or computer course has become a necessity of this century. I also think that instrument courses such as guitar, baglama or drums courses are also necessary as a therapy of brisk life, both in terms of health and personal development” (KG9-Instrument course)

“I see incidents of violence against women very often around me. And that’s why I want women to be trained to defend themselves. For example, karate, taekwondo, Muay Thai (Thai boxing) etc. courses can be given.” (KG15-Defense training)

The participants, who expressed their opinions under the theme of *art and sports*, said that an instrument course such as guitar, baglama or drums was necessary in order to give peace to the soul of the individual in the flow of life and that women should receive defense training such as karate, taekwondo, Thai boxing in the context of violence against women, which had become one of the important problems of today.

## DISCUSSION, CONCLUSION, RECOMMENDATIONS

In this study, it was aimed to reveal the pre-service teachers' proposals for a lifelong learning program in accordance with the needs of the society. For this purpose, firstly pre-service teachers were asked to express their opinions on a lifelong learning program that takes the needs of the society into consideration. When the data obtained from 62 pre-service teachers were examined, it was seen that 20 pre-service teachers proposed a lifelong learning program, but they did not make any explanation. On the contrary, 42 of them expressed their ideas in detail and while proposing a lifelong learning program, they made detailed explanations. Based on this, it can be said that the majority of the pre-service teachers were more aware about the importance of lifelong learning. In a study conducted by Adams (2007), it was aimed to determine perceptions of 34 secondary school teachers about the characteristics of students with lifelong learning skills. The results obtained from the analysis of the quantitative data showed that students with lifelong learning skills should actively engage in learning, set their goals, have good communication skills, have basic literacy and numeracy skills, make researches, develop a set of organization skills, have improved social skills, have the capacity to embrace changes and demonstrate specific personal attributes that contribute to their capacity as lifelong learners. Solmaz (2017) and Gökyer et al. (2018) found that lifelong learning tendencies of pre-service teachers were at high level. On the contrary, Özen and Öztürk (2016) found that lifelong tendencies of pre-service teachers were at moderate level. Teachers have a key role in promoting the lifelong learning skills of the students in learning and teaching process (Klug et al., 2014). As a result, pre-service teachers should be given more opportunities at college education in order to improve their lifelong learning skills. Accordingly, universities should provide facilities for the students. The availability of technological equipment, access to information, and continuing education centers, which can be considered important for the concept of lifelong learning and supporting learning at higher education, may affect the perceptions of pre-service teachers about lifelong learning.

Within the first theme emerged with the name of *profession*, it was seen that 23 pre-service teachers stated that different courses such as farming training, beekeeping education, animal husbandry training, hairdressing course, business training, textile production, etc. should be included in a lifelong learning program that takes the needs of the society into consideration. Lifelong learning has various work-related benefits (Ting, 2015). According to Duță and Rafailă (2014), lifelong learning has some economic and vocational aspects. On this issue, Dæhlen and Ure (2009) stated that the skills and knowledge acquired in lifelong learning programs could enhance employment prospects for the participants. Similarly, Tight (1998) emphasized that policy makers should prioritize vocation-related trainings to invest in lifelong learning process. Jenkins et al. (2003) found that participating in lifelong programs was effective for male respondents who left school earlier in terms of finding a job. Similarly, Rothes et al. (2014) obtained the finding that male respondents with a lower level of education in Portugal benefitted from lifelong learning programs in terms of finding a job. In addition, the participants who attended lifelong learning programs thought that they would find a job after completing the program. Similarly, in vocation-related programs, participants are generally highly motivated since they hope using newly acquired skills and knowledge for employment (Awuor, & Parks, 2015; Lowe, & Gayle, 2015). As seen, individuals who attend lifelong programs can benefit from increased work-related opportunities. In line with this, the pre-service teachers participated in this study also supported the idea that lifelong learning programs should include work-related trainings. Therefore, it can be argued that they were aware of the importance of the benefits that lifelong learning programs can offer for the individuals in finding a job or increasing their abilities and skills.

As the second theme that emerged in the study, under the *technology* theme, pre-service teachers stated that computers courses, technology education and distance education courses should be conducted within a lifelong learning program. Based on this, it can be argued that teachers are aware of the importance of technology to keep up with the changes encountered in all areas. When the literature

is examined, the importance of technology in promoting lifelong learning has been emphasized. Information technologies provide a technical environment for lifelong learning and they serve as a channel for information and educational resources (Syslo, 2004). In the study conducted by Miertschin et al. (2016), majority of the university students stated that the use of mobile devices helped them to develop lifelong learning skills. They also stated that with the use of mobile devices, they could find information from a wide variety of resources, integrate different ideas, use different learning strategies, participate actively in the learning process and learn from peers. According to Pureta (2015), as a result of the availability of mobile devices and the development of technology, mobile learning is a reasonable key solution for lifelong learning. Similarly Fischer and Konomi (2007) and Clough et al. (2008) were in the opinion that availability and widespread use of mobile devices provided opportunities for users and supported lifelong learning outside the formal learning contexts. Based on this, it can be concluded that the pre-service teachers support the use of technological devices to promote lifelong learning process. Nowadays, it is possible to follow the developments, changes and modernization in every field through computers and internet. Therefore, technology is an indispensable part of life. It can be argued that individuals can be lifelong learners by benefitting from technology during learning process.

Another theme that emerged based on the opinions of the pre-service teachers was *personal development*. The pre-service teachers stated that parent education, diction training, entrepreneurship education, risk analysis training, time management education, motivation education and communication education should take place in lifelong learning programs to promote personal development. The relationship between personal development and lifelong learning is presented by the researchers in the literature. According to Berker and Horn (2003), lifelong learning can be effective for personal development, thus individuals can have increased self-esteem. Ting et al. (2015) stated that in lifelong learning programs, personal development encompassed development in self-esteem, knowledge and skills as well as networking. Lifelong learning involves self-actualization of individuals. Individuals can achieve their personal development through lifelong learning. In the personal context, lifelong learning aims to enable the individual to perform better in the field he/she is interested in and to ensure his/her own personal development (Divjak et al., 2004). In this study, pre-service teachers pointed out that lifelong learning process provided personal development. Lifelong learning process affects personal development as a key factor. As a result, lifelong learning can help individuals to cope with the changing world conditions by enabling them to develop self-knowledge and self-development in line with their interests, abilities and curiosity.

Under the theme of *health and environment*, the codes which were health education, hygiene education, childcare education, disaster education, occupational health and safety education, recycling education and environmental education emerged. Environmental education can make great contributions to sustainable development. For this, the education on environment should not be limited to schools. Instead, it should become a lifelong process (Haigh, 2006). According to the report of World Health Organization (2020), education sector can help create healthier people and communities by ensuring availability and access to meaningful lifelong learning opportunities. In the research which was conducted by Yamashita et al. (2019), it was found that lifelong learning reflected a promising autonomous and sustainable strategy to improve health in later life. Based on the information presented in the literature, it is clear that health and environmental issues are two important aspects of lifelong learning. In the current study, the importance of health and environmental issues in terms of lifelong learning process was stated by the pre-service teachers, which indicated that pre-service teachers participated in the study were conscious about the issues related to health and environment. Therefore, in educational institutions, more learning opportunities should be provided to increase the awareness level of individuals about environment and health issues, which in turn may increase their lifelong learning skills.

Another theme emerged was *handicrafts* and the codes under this theme were sewing embroidery course, carpet weaving course and traditional shoes course. On the other hand, under the theme of *education*, 6 pre-service teachers stated that foreign language education and literacy course should be included in a lifelong learning program. In the study conducted by Köksal and Çöğmen (2013) it was found that pre-service teachers stated their opinions on the importance of learning a foreign language for being a lifelong learner. Additionally, they stated that lifelong learning was required to develop oneself. According to Czerkawski and Berti (2020), foreign language teaching strategies are required to foster lifelong learning. Similarly, there is a strategic and mutually strengthening relationship between literacy and lifelong learning. Literacy is essential in the success of individuals, organizations, institutions and society. Therefore, individuals who want to be lifelong learners should be provided with literacy skills (Solmaz, 2017). Based on this, it can be argued that increasing the literacy skills of individuals may increase their lifelong learning skills. Therefore, seminars and conferences should be held on lifelong learning and literacy education. Furthermore, educational programs related to the importance of lifelong learning and literacy education should be prioritised at universities.

On the other hand, under the theme of *law*, there were codes which were human rights education and combating violence training. Under the theme of *art and sports*, which was the last theme that emerged in the study, there were codes as instrument courses, defense training and activity-oriented courses. In the study, it was seen that pre-service teachers were aware of the different aspects of the lifelong learning process. In the OECD report (2020), it was stated that in Korea's lifelong learning system, there are some courses that prioritize enjoyment and self-development of the citizens. For example, courses such as calligraphy, languages, baking or handicraft are included in the lifelong learning programs in Korea.

Lifelong learning encompasses both formal and informal educational practices. Therefore, all educational activities, included in traditional education practices are within the scope of lifelong learning (Friesen, & Anderson, 2004). In the study, pre-service teachers mentioned about different courses that should be included in a lifelong learning program that aims to take the needs of the society into consideration. This result shows that pre-service teachers are aware of the different aspects of lifelong learning process and they think that different courses related to different fields should be started to foster lifelong learning process. Different courses within lifelong learning programs can help individuals to discover new interests and to learn new skills, and can open new opportunities and possibilities for them.

Lifelong learning is a supportive process that increases and strengthens the knowledge, values, skills and understandings that people have gained throughout their lives and enables them to apply them in real life (Aspin, & Chapman, 2000). Lifelong learning covers twenty first century skills and these skills are considered to be dramatically crucial to information societies. In lifelong learning programs, individuals are expected to develop various competencies in order to adapt to the rapidly changing world conditions (Dabbagh, & Castaneda, 2020). With the acquisition of these skills, continuous development of the society can be enabled (Cornford, 2002). Based on this, it can be said that pre-service teachers participated in this study are familiar with the needs of the people in the society and accordingly they are in the opinion that the courses on different professions can help individuals to be lifelong learners. Lifelong learning is a key factor in terms of teaching profession. In order to respond to the needs emerging with the 21st century and to adapt to the age, education systems have to constantly renew themselves. Teachers, one of the main parts of the education system, are one of the most important occupational groups in the world. In order to raise individuals who can meet today's needs, it is necessary to train teachers who improve themselves, know how to access information and use information. For this reason, teachers should constantly improve themselves and adopt lifelong learning as a principle. In addition, teachers should always assess and redesign their teaching methods for self-development. Within this context, courses on lifelong learning competencies should be included in



teacher education programs intensively. Additionally, activities and facilities should be carried out in order to increase the lifelong learning competences of pre-service teachers. The findings of the study were obtained from pre-service teachers. In this sense, recommendations can be written with the aim of increasing teachers' lifelong learning competences.

## REFERENCES

- Adams, D. (2007). Lifelong learning skills and attributes: The perceptions of Australian secondary school teachers. *Issues in Educational Research*, 17(2), 149-160.
- Aspin, D. N., & Chapman, J. D. (2000). Lifelong learning: Concepts and conceptions. *International Journal of Lifelong Education*, 19(1), 2-19. doi:10.1080/026013700293421.
- Awuor, R. A., & Parks, D. (2015). Development of graduate education programs in the age of broken borders. *Catalyst*, 11(1), 41-45.
- Berker, A., & Horn, L. (2003). *Work first, study second: Adult undergraduates who combine employment and postsecondary enrollment*. (NCES 2003-167). U.S. Department of Education, National Center for Education Statistics. Washington, DC. <https://nces.ed.gov/pubs2003/2003167.pdf>
- Biao, I. (2015). Lifelong learning as an instrument for human capital development in Benin. *International Review of Education*, 61(5), 631-653. doi:10.1007/s11159-015-9520-y
- Breslin, T. (2016). Lifelong learning. *RSA Journal*, 162(5565), 42-45.
- Charungkaitikul, S., & Henschke, J. A. (2014). Strategies for developing a sustainable learning society: An analysis of lifelong learning in Thailand. *International Review of Education*, 60(4), 499-522. doi:10.1007/s11159-014-9444-y
- Clough, G., Jones, A. C., McAndrew, P., & Scanlon, E. (2008). Informal learning with PDAs and smartphones. *Journal of Computer Assisted Learning*, 24, 359-371. doi:10.1111/j.1365-2729.2007.00268.x
- Cornford, I. R. (2002). Learning-to-learn strategies as a basis for effective lifelong learning. *International Journal of Lifelong Education*, 21(4), 357-368. doi:10.1080/02601370210141020
- Czerkawski, B., & Berti, M. (2020). Language learning in the 21st century: Current status and future directions. In B. Dupuy and M. Grosbois (Eds), *Language learning and professionalization in higher education: Pathways to preparing learners and teachers in/for the 21st century* (pp. 11-35). doi:10.14705/rpnet.2020.44.1100
- Dabbagh, N., & Castaneda, L. (2020). The PLE as a framework for developing agency in lifelong learning. *Educational Technology Research and Development*, 68(6), 3041-3055. doi:10.1007/s11423-020-09831-z
- Dæhlen, M., & Ure, O. B. (2009). Low-skilled adults in formal continuing education: Does their motivation differ from other learners?. *International Journal of Lifelong Education*, 28(5), 661-674. doi:10.1080/02601370903189948
- Dinevski, D., & Dinevski, I. V. (2004). The concepts of university lifelong learning provision in Europe. *Transition Studies Review*, 11(3), 227-235. doi:10.1007/s11300-004-0014-z
- Divjak, S., Dowling, C., Fisser, P., Grabowska, A., Hezemans, M., Kendall, M. Mihnev, P., Ritzen, M., Syslo, M. M., Vicari, R. M., & Weert, T. J. (2004). Lifelong learning in the digital age, Focus group report. *IFIP International Federation for Information Processing*, 137, 1-49. doi:10.1007/1-4020-7843-9\_1
- Duță, N., & Rafailă, E. (2014). Importance of the lifelong learning for professional development of university teachers—needs and practical implications. *Procedia-Social and Behavioral Sciences*, 127, 801-806. doi:10.1016/j.sbspro.2014.03.358
- Evans, K., Schoon, I., & Weale, M. (2013). Can lifelong learning reshape life chances? *British Journal of Educational Studies*, 61(1), 25-47. doi:10.1080/00071005.2012.756163.
- Fischer, G., & Konomi, S. (2007). Innovative socio-technical environments in support of distributed intelligence and lifelong learning. *Journal of Computer Assisted Learning*, 23(4), 338-350. doi:10.1111/j.1365-2729.2007.00238.x
- Friesen, N., & Anderson, T. (2004). Interaction for lifelong learning. *British Journal of Educational Technology*, 35(6), 679-687. doi:10.1111/j.1467-8535.2004.00426.x
- Fryer, B., & Barber, M. (2000). Lifelong learning. *RSA Journal*, 148(5494), 48-52.
- Gökyer, N., Bakcak, S., Cihangiroğlu, N., Koçak, O., & Yilmaz, G. (2018). Lifelong learning tendencies of teacher candidates studying in pedagogical formation program. *Journal of Education and Training Studies*, 6(11a), 33-44. doi: 10.11114/jets.v6i11a.3799
- Green, A. (2011). Lifelong learning, equality and social cohesion. *European Journal of Education*, 46(2), 228-243.
- Guba, E. G., & Lincoln, Y. S. (1982). Epistemological and methodological bases of naturalistic inquiry. *Educational Communication and Technology Journal*, 30(4), 233-252.



- Haigh, M. J. (2006). Promoting environmental education for sustainable development: The value of links between higher education and non-governmental organizations (NGOs). *Journal of Geography in Higher Education*, 30(2), 327-349. doi:10.1080/03098260600717422
- Jenkins, A., Vignoles, A., Wolf, A., & Galindo-Rueda, F. (2003). The determinants and labour market effects of lifelong learning. *Applied Economics*, 35(16), 1711-1721. doi:10.1080/0003684032000155445
- Klug, J., Krause, N., Schober, B., Finsterwald, M., & Spiel, C. (2014). How do teachers promote their students' lifelong learning in class? Development and first application of the LLL Interview. *Teaching and Teacher Education*, 37, 119-129. doi:10.1016/j.tate.2013.09.004
- Köksal, N., & Çoğmen, S. (2013). Pre-service teachers as lifelong learners: University facilities for promoting their professional development. *Eurasian Journal of Educational Research*, 53, 21-40.
- Lima, L. C., & Guimarães, P. (2011a). UNESCO as a policy actor in education. In *European strategies in lifelong learning: A critical introduction* (1st ed., pp. 113-142). Verlag Barbara Budrich.
- Lima, L. C., & Guimarães, P. (2011b). Lifelong education, lifelong learning, and the State. In *European strategies in lifelong learning: A critical introduction* (1st ed., pp. 15-38). Verlag Barbara Budrich.
- Lowe, J., & Gayle, V. (2016). From lifelong learning to youth employment: Back to the future for higher education in Scotland's colleges. *Journal of Further and Higher Education*, 40(3), 351-371. doi:10.1080/0309877X.2014.971104
- Miertschin, S. L., Stewart, B. L., & Goodson, C. E. (2016). Mobile devices and lifelong learning: The students' perspective. Paper presented at 2016 ASEE Annual Conference & Exposition, New Orleans, Louisiana.
- Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis*. Thousand Oaks, CA: Sage Publication.
- Organisation for Economic Co-operation and Development (OECD) (2020). Strengthening the governance of skills systems: Lessons from six OECD countries; OECD skills studies. OECD Publishing: Paris, France. [https://www.dgaep.gov.pt/upload//RIareas/OCDE/Strengthening\\_Governance\\_skills\\_Systems\\_OECD\\_2020.pdf](https://www.dgaep.gov.pt/upload//RIareas/OCDE/Strengthening_Governance_skills_Systems_OECD_2020.pdf)
- Owusu-Agyeman, Y. (2017). Expanding the frontiers of national qualifications frameworks through lifelong learning. *International Review of Education*, 63(5), 657-678. doi:10.1007/s11159-017-9661-2
- Özen, R., & Öztürk, D. S. (2016). The relationship between pre-service teachers' lifelong learning tendencies and teaching profession anxiety levels. *Universal Journal of Educational Research*, 4(12A), 7-15. doi:10.13189/ujer.2016.041302
- Patton, Q. (2002). *Qualitative research and evaluation methods*. Thousand Oaks, CA: Sage Publications, Inc.
- Pureta, I. (2015). Lifelong learning process using digital technology. *Interdisciplinary Management Research*, 11, 39-48.
- Regmi, K. D. (2015). Lifelong learning: Foundational models, underlying assumptions and critiques. *International Review of Education*, 61(2), 133-151. doi:10.1007/s11159-015-9480-2
- Roche, S. (2017). Introduction: Listening to the grass roots: Bottom-up approaches to lifelong learning. *International Review of Education*, 63(2), 145-152. doi:10.1007/s11159-017-9634-5
- Roche, S. (2016). Introduction: The ins and outs of lifelong learning. *International Review of Education*, 62(6), 665-670. doi:10.1007/s11159-016-9607-0
- Rothes, A., Lemos, M. S., & Gonçalves, T. (2014). Motives and beliefs of learners enrolled in adult education. *Procedia-Social and Behavioral Sciences*, 112, 939-948. doi:10.1016/j.sbspro.2014.01.1252
- Saltalı-Durmuşoğlu, N. (2021). Preschool teachers' ability to manage problem behaviours in their classroom: Can it be predicted by teacher self-efficacy and emotional literacy. *Journal of Teacher Education and Lifelong Learning*, 4(1), 1-11.
- Sharples, M. (2000). The design of personal mobile technologies for lifelong learning. *Computers & Education*, 34(3-4), 177-193. doi:10.1016/s0360-1315(99)00044-5
- Solmaz, D. Y. (2017). Relationship between lifelong learning levels and information literacy skills in teacher candidates. *Universal Journal of Educational Research*, 5(6), 939-946. doi:10.13189/ujer.2017.050605
- Steffens, K. (2015). Competences, learning theories and MOOCs: Recent developments in lifelong learning. *European Journal of Education*, 50(1), 41-59. doi: 10.1111/ejed.12102
- Stromquist, N. P., & da Costa, R. B. (2017). Popular universities: An alternative vision for lifelong learning in Europe. *International Review of Education*, 63(5), 725-744. doi:10.1007/s11159-017-9662-1
- Su, Y. (2015). Ensuring the continuum of learning: The role of assessment for lifelong learning. *International Review of Education*, 61(1), 7-20. doi:10.1007/s11159-015-9465-1
- Syslo, M. M. (2004). Schools as lifelong learning institutions and the role of information technology. In: Van Weert T.J., Kendall M. (eds) *Lifelong Learning in the Digital Age*. IFIP the International Federation for Information Processing.

- Teherani, A., Martimianakis, T., Stenfors-Hayes, T., Wadhwa, A., & Varpio, L. (2015). Choosing a qualitative research approach. *Journal of Graduate Medical Education*, 7(4), 669-670. <https://doi.org/10.4300/JGME-D-15-00414.1>
- Tight, M. (1998). Education, education, education! The vision of lifelong learning in the Kennedy, Dearing and Fryer reports. *Oxford Review of Education*, 24(4), 473-485.
- Ting, S. H., Ibrahim, S. H., Affandi, R., Baharun, A., Abidin, W. A. W. Z., & Sim, E. U. H. (2015). Lifelong learning for personal and professional development in Malaysia. *Catalyst*, 12(2), 6-23.
- Tuckett, A. (2013). Towards a lifelong learning target for 2015. *International Review of Education*, 59(3), 383-397. doi:10.1007/s11159-013-9359-z
- van der Zwaan, B. (2017). The labour market and lifelong learning. In *Higher education in 2040: A global approach* (pp. 149-156). Amsterdam University Press.
- World Health Organization (2020). The Minsk declaration: The life-course approach in the context of health 2020. Denmark: WHO Regional Office for Europe. Retrieved from [https://www.euro.who.int/\\_\\_data/assets/pdf\\_file/0009/289962/The-Minsk-Declaration-EN-rev1.pdf](https://www.euro.who.int/__data/assets/pdf_file/0009/289962/The-Minsk-Declaration-EN-rev1.pdf) on the 1st of March 2022.
- Yamashita, T., Bardo, A. R., Liu, D., & Yoo, J. W. (2019). Education, lifelong learning and self-rated health in later life in the USA. *Health Education Journal*, 78(3), 328-339. doi:10.1177/0017896918809500