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DESIGN SKILLS WORKSHOPS AND EXAMPLES OF GOOD PRACTICE

İsmail Gelen[1i],
İsmail Çetin[2]
[1]Assoc. Prof. Dr.,
Educational Science Department,
Ondokuz Mayis University,
Samsun, Türkiye
orcid.org/0000-0001-6669-8702
[2]Expert Teacher,
Kuskayası Elementary School,
Samsun, Türkiye
orcid.org/0000-0003-0986-8634

Abstract:
Developed countries in the world are introducing new reforms, especially in education, integrated with the 21st-century skills that many organizations have announced. In line with these goals, one of the targets set by the Ministry of National Education in our country with the 2023 Vision Document is design skill workshops. The aim of this study is to determine the criteria for establishing the Design and Skill Workshops targeted with the 2023 Vision Document in primary and secondary schools and to present a scientific study on how to create them in schools with application examples. The first stage of the study is the type of descriptive analysis. The criteria of the two workshops determined in the first stage were determined by expert opinions and the workshops were tried to be established in the school determined within the framework of these criteria. In order to achieve these aims of the research, quantitative and qualitative data were collected and analyzed. The qualitative data obtained in the research were used to explain the quantitative data and to ensure internal consistency. For this reason, "exploratory sequential design", one of the mixed research methods, was used in the research. For this reason, after the establishment of two sample workshops in Stage 2, the knowledge and skills of the students who received training from this workshop were analyzed with post-application self-evaluation forms, and the letters containing their feelings and thoughts about the workshops were analyzed with the Maxqda 2020 program. Thus, the results about the effectiveness of the workshop establishment criteria in gaining skills were revealed and evaluated. According to the findings obtained in the workshop studies; It has been seen that the students enjoy the workshops, improve their self-confidence, and contribute to the development of psychomotor, cognitive, affective and language skills.

[i] Correspondence: email ddrismail@hotmail.com

It has been seen that design and skill workshops have important contributions to students' acquisition of targeted 21st-century skills. It has been seen that the targeted gains in the modular programs developed in the workshops are gained by the students and reveal their existing skills of the students. The criteria of the workshop, which is planned to be opened according to the possibilities, should be determined by considering the interests, wishes and abilities of the students in schools, and workshops should be established in parallel with this criterion and carried out by teachers who are experts in their fields.

Keywords: Vision 2023 document, design and skills workshop, caricature, radio

1. Introduction

The conceptions of many experts who think that the cursor is moving towards mechanization and digitalization in technology and human interaction, which were considered science fiction in the past, are seen as an ordinary, lively and up-to-date version of what is happening today. The rapid progress of high value-added technologies has forced all sectors to take serious steps in adaptation. It requires some innovations in the education ecosystem, which cannot adequately respond to the era. In order for individuals with 21st-century skills to exist, updating or changing education policies is also necessary for change and development (Şişman, 2002).

The aims of education and the level of accessibility to the aims reveal the power of the governments. Governments aim to raise citizens with the skills of the 21st century. According to the World Health Organization, ten basic skills that a healthy person should have in the 21st century are; interpersonal communication, communication, self-awareness, empathy, problem-solving, decision making, coping with stress, coping with emotions, creative thinking and most importantly critical thinking (WHO, 1997). These skills listed by the World Health Organization are the skills that people generally use to solve the problems they face in their daily lives (Gulhane, 2014). Therefore, one of the educational goals should be to raise qualified individuals who can cope with the problems of the 21st century (Tutkun, 2010).

21st-century skills have also been addressed by many organizations and many studies have been carried out. The 21st Century Learning Platform (P21) has categorized 21st-century skills based on learning and innovation skills, knowledge, media and technology, and life and career competencies in three categories. 21st Century skills; creativity and innovation, critical thinking and problem solving, communication and collaboration, information literacy, media literacy, information-media-technology literacy, flexibility and adaptability, entrepreneurship and self-management, social and intercultural skills, productivity and accountability, leadership and responsibility. (Partnership for 21st Century Skills, 2009). In the 2030 report of another important organization, OECD (2018), which includes 21st-century education and skills, societies emphasized that it is changing rapidly socially and environmentally. It focuses on three areas of expertise: creating new value, reconciling tensions and climates, and taking

responsibility for the training of students who are aware of their responsibilities in the perspective of "*transformative competences*" and are equipped to fulfill the skills required by the age. OECD also directs the skills required by the age by observing the educational status of countries with exams such as PISA and PIAAC (OECD, 2018). The EU, on the other hand, has revealed its most authoritative education policies under ET2020. With ET2020, which has set its education policy as one of its four strategic goals, to achieve these, digital skills, it has emphasized the development of entrepreneurship, creativity and innovation at all levels of education.

In order to keep up with change and development, the world is making efforts to gain the skills required by the 21st century with a number of educational reforms. Turkey, on the other hand, has put forward a three-year strategy document reflecting the targets to be achieved in the centennial of our Republic, under the title of "Vision 2023", similar to the 2020 strategy published by the European Union. With the Vision 2023 strategy document, it is aimed to establish "*design and skill workshops*" suitable for the interests, talents and temperaments of the students by highlighting skills training in the digitalized world.

Skill-based training activities have an important place in the 2023 Vision Document; it is seen that the educational activities from the past to the present, it has an important place in the preparation of life by improving the skills of the students.

Farabi takes his place in history as "*muallim san-i*", that is, the second teacher. Farabi separated education and training from each other. He defines teaching as a method of transferring theoretical virtues. He defined education as a method of creating moral virtues and business arts (Akyüz, 1989). Farabi argues that theoretical teaching alone is not sufficient and that both mental and moral development is supported by skill-based education. Farabi is one of the first Turkish intellectuals to express an opinion on skill-based education (Çetin, 2022).

Another of the most important intellectuals of our history is Ibn Sina. He is a scientist who lived between 980 and 1037, has an important place in the history of thought, medicine and education and is known as the third teacher after Muallim-i salis, that is, after Aristotle and Farabi (Akyüz, 1982).

Avicenna explained in detail how a child should be brought up from birth, dividing it into age groups. In fact, he made the developmental periods of Piaget centuries ago and expressed his views on education. He stated that education should be between the ages of 6-14 and that education is a process consisting of six parts. These are, he lists the mind, industry, suggestion, discipline, imitation and warning as teaching (Çetin, 2022).

1) Mental Teaching: Indicates the teacher's explanation of the subject with reasons and examples.
2) Industrial Teaching: Tells students to teach how to use tools. Saw, auger, grater etc.
3) Suggestive Teaching: With its repetition methods, poetry provides the recognition of concepts in this way.

4) Remedial Teaching: It is the stage where advice and counsel are given to the students.
5) Imitational Teaching: It is the acceptance of what the teacher wants to teach by the students as it is.
6) Ordinational Teaching: This is the section where the causes and consequences of the events that students encounter in their environment are taught.

Considering Ibn Sina's views on education, it is clear that his age is actually thousands of years later. The views put forward by Ibn Sina are accepted even today. Educational reforms in the world to enable individuals to gain 21st-century education skills validate the views put forward by Ibn Sina centuries ago. Avicenna differs in three points from the education views of Plato and Aristotle. These are their views on skill-based education in schools, where it is argued that the education of children is the duty of the father and the family, generality and equality in education, and especially Pestalozzi, which is accepted in the world. Avicenna specifically states that children should receive vocational training according to their interests and abilities (Çilenti, 1982).

Beginning with J. J. Rousseau as new educational ideas in Europe from the 18th century, Ibn-i Sina and Dewey, Pestalozzi, Fröbel, etc. It is seen that he said the education ideas advocated by intellectuals such as until the 20th century, one of the biggest problems in education in Europe was to realize collective education. Decroly's Hermitage School is cited as the best example of collective teaching. Ibn-i Sina talked about collective education centuries ago and expressed the principles such as generality and equality in education, and equality of opportunity in education, which are even in our National Education Basic Law today. Again, school is a natural environment for children, children should be educated with free and skill activities specific to their abilities, general education and vocational education should be given according to the child's interest,

When we look at the skill-based education movements in Europe, it is seen that new views on education emerged with the influence of humanism and the renaissance, especially in the 15th and 16th centuries. It is seen that the foundations of life-centred skill-based education were laid in these centuries (Çetin, 2022).

It is seen that new trials in education started with Quintilianus. For example, Vittorino, influenced by Quintilianus' views on education, prioritized that students should be subject to a life-centered education at the school he opened in Mantua. They opposed the education of children in closed places. In this school, enlightened educators such as Erasmus, Rabelais, Montaigne and Luther were trained. Intellectuals such as Erasmus, Rabelais, Montaigne and Luther, who grew up in Vittorino's school, opposed the rote learning method of children. Erasmus; the free education of the child, Rebalais; he argued that education that does not develop talents and abilities is nothing, and Monteigne argued that one's abilities and talents come before reason and society. So, 15-16. In the centuries, children's interests and abilities began to be emphasized in schools, Bacon gave importance to experiment and observation and gave more importance to practical results rather than theoretical results (Kanad, 1963). Comenius, on the other hand, defined schools as workshops where educational activities are held (Bree, 2017).

John Lock argued that education should be full of life, that is, students can learn the right information with the right experiences (Binbaşığlu, 1982; Çetin, 2022).

Johann Heinrich Pestalozzi, one of the important educators and writers of the 18th century, says that the student's self-activity is the basis of education. With this philosophy, he is seen as a pioneer of supporters of vocational training. Pestalozzi highlights the three elements of the human being. It means thinking, hearing and doing. He explains this as the integrity of the mind, heart and hand (Bree, 2017). He advocated combining teaching with work. Pestalozzi argued that any knowledge that is not applied to real life is of no importance (Bekir, 1930). With this aspect, Pestalozzi's view has become one of the important educational principles of the 20th century (Aytaç, 1972). Opinions that attach importance to job training have emerged in schools. Educators such as Pestalozzi, Fröbel and Spencer both defended and applied these views.

Liberal educators defended business schools and socialist educators defended polytechnic schools. Famous socialist educators of the 19th century are Karl Max and Engels. They put forward the polytechnic education style with the idea of combining education with material production. Polytechnic education is used together with practice and theory, and the places where production is made (factory, workshop, farm, etc.) should be seen as schools. Students in educational environments can both demonstrate their talents and produce a job with financial value; They should also have the competency of learning by doing and living through activities such as experiment, observation, research, examination, travel (Mala, 2011).

In the 20th century in Europe, especially the developments in industry and science and technology have greatly affected education. The most popular and widespread education movement of the 20th century is the business education movement. Educators of the business education movement described the old schools as "book schools" and "reading schools" and argued that they were far from raising well-equipped individuals specific to the requirements of the age. For this purpose, business schools have become quite common. One of the most important advocates of business schools in the 20th century is the German G. Kerschensteiner. According to Kerschensteiner, the most important purpose of education is to raise individuals who are useful to society, and loyal to the state, together with the profession of the person. According to Kerschensteiner, if a chipped stone is not placed where it is needed and stands aside, just as it does not work alone, the grown person will not have fulfilled his educational purpose unless he does something useful in society. Kerschensteiner gave importance to vocational acquisition and also mentioned in his "Business School" books that schools should be created enriched with skill-based activities in the education of children. He defended the principle of integrity along with the principle of effectiveness and said that moral character would be realized by considering the child as a whole in school and developing his strong skills. He gave importance to manual skills in schools and wanted vocational business courses to be introduced in primary schools and creative business courses in secondary schools.

Another important educator of the 20th century, J. Dewey, emphasized that schools should abandon classical education methods and that students should be

educated with life-based educational activities. He argued that education is life itself, not preparation for life (Dewey, 1952). The other educator who applied J. Dewey's views in the schools he opened is German Dr. Herman Lietz. With the three schools he opened in the cities of Lietz, İlsenburg, Haubinda and Bibevstein, he implemented training based on students' daily life skills. He used observation, experiment and work (skill-based education) methods in his schools.

Another important psychologist and educator seen in Europe in the 20th century is Ovide Decroly. Influenced by Fröbel's words "*Prepare your children for life*", Decroly defending the view of "*Education for life through life*", with the Hermitage school he opened in Brussels, focused on his unique teaching methods and put the education thought into practice in the Hermitage school, which was determined according to the child's interests and needs. In the program determined at the Hermitage School, all themes are associated with the child and they complete their education freely with observation, association and expression methods. Children make observations either individually or in groups under the created curriculum. Prepares magazines and books. Explains by conference method and exhibits their work. In addition, handicrafts are given importance in this school so that they can also do their artistic work, and the child is given the opportunity to do whatever handicraft he/she wishes according to his/her taste, and the pictures drawn are exhibited on the walls with paintings. The orchestra is formed and the children play the instrument they want and have a talent for. In addition, under the name of school decorations, free painting of school furniture was also carried out. When Swiss Adolf Ferriere, one of the most important educators of the period, visited Brussels for the Hermitage School, he was impressed by the educational activities he encountered and said, "*I came to Brussels as a teacher, but I found my teacher here*" (Arıbaş, 2004). The orchestra is formed and the children play the instrument they want and have a talent for. In addition, under the name of school decorations, free painting of school furniture was also carried out. When Swiss Adolf Ferriere, one of the most important educators of the period, visited Brussels for the Hermitage School, he was impressed by the educational activities he encountered and said, "*I came to Brussels as a teacher, but I found my teacher here*" (Arıbaş, 2004). The orchestra is formed and the children play the instrument they want and have a talent for. In addition, under the name of school decorations, free painting of school furniture was also carried out. When Swiss Adolf Ferriere, one of the most important educators of the period, visited Brussels for the Hermitage School, he was impressed by the educational activities he encountered and said, "*I came to Brussels as a teacher, but I found my teacher here*" (Arıbaş, 2004).

Another important educator of the 20th century is the Swiss educator Adolf Ferriere. Influenced by the French philosopher Henri Bergson, Ferriere, like J. Dewey, believed that education is life itself. He developed the business school project starting from the child and adopted active learning as a principle. Based on children's handicraft activities, he discussed the social, moral and mental dimensions of education. He expressed his thoughts about business school in his work called “Active School”. Ferriere supported the child's hand skills and said that the educational activities to be carried out with hand skills would also provide mental development. By combining the theory and

practice of handicraft, showing the compatibility of the object and mental activities, observation, association,

The Turkish educator, İsmail Hakkı Baltacıoğlu, who expresses the most important views in skill-based education and also reflects the philosophy of the design skill workshops planned to be opened with the 2023 Vision Document (MEB, 2018). İsmail Hakkı Baltacıoğlu has made a difference with his views on education in our education history and has defended production-oriented schools. According to Fay Kirby, he is shown as the architect of Turkish pedagogy and the most important intellectual leader of the Village Institutes that were opened in the Republican period. The problems and solution suggestions expressed by Baltacıoğlu in education, whose views on education are still valid today, are similar to the targets of the 2023 Vision Document published by the Ministry of National Education in 2018. Baltacıoğlu's production schools parallel the liberals' business schools and the socialists' polytechnics. After returning from Europe, İsmail Hakkı Baltacıoğlu wrote production-oriented ideas supporting workforce training in education with the influence of the schools he saw. In 1912, he published his first book, which was influenced by these effects, under the name of "Talim ve Terbiyede İnkılâp". In his book, he explains his views on education as follows:

> *"People's life success; not their first-degree knowledge, intelligence; It is the product of moral characteristics such as initiative, perseverance, courage and bravery, that is, of their characters. The sole purpose of a nation determined to live should be to prepare its children for life. Education; It is the most important capital for life. Even the greatest importance of knowledge is for a tool that gives strength and development to the elements of character's importance."* (Baltacioglu, 1927).

Baltacıoğlu opposed rote education and started the struggle to create a new education system with the influence of the schools he saw in Europe. According to Baltacıoğlu, education should aim at improving the vocational skills of children. Education should not only inform the person in a certain field, but also develop his/her personality in that field. Skills training should be life-centered and for the community. Baltacıoğlu says, "*Aircraft is learned in the air, agriculture is learned in the field, swimming is learned in the sea, and blacksmithing is learned in the workshop*" (Baltacıoğlu, 1995). We see that Dewey's definition of school for life and J. J. Rousseau's definitions of "*school is preparing for life*" overlap with their views on education. He approached education with a pragmatist approach and advocated teaching useful skills to children (Çetin, 2022). "*İçtima-i Mektep*" is the summary of Baltacıoğlu's views on education. He shows this work as the book of his pedagogical beliefs (Baltacıoğlu, 1942). He combined the pedagogical principles he defended with production and reflected them in his book. Defining the traditional understanding of education in this school; class/row, curricula, book-based teaching, rote learning, class hours, pressure, punishment, etc. there is none. Instead of these, there is life itself based on real activities, where students are free and gain professional skills (Aytaç, 1978). The philosophy of this school can be expressed as

"*education on the job, through the job, on the job*". Thanks to work, the multi-faceted development of the individual is aimed (Kafadar, 1997). In this period, together with this school; The concepts of collective education, democratic school and production school were used for the first time and guided the education policies after the foundation of the republic (Güngör, 2008). Also, Baltacioglu criticized the exams and said that rote learning is a part of it. According to him, the exam cannot measure students by asking questions. Because the mental abilities and maturation of the individual are not the same (Tozlu, 1989). He says that the exams are not enough to measure and evaluate the students and instead, process evaluation should be done. According to Baltacıoğlu, the important thing is; whether it gains the will to work and whether it continues (Tozlu, 1989). The main evaluation is to evaluate the competence of children on the work they do by living by doing (Baltacıoğlu, 1944). Baltacıoğlu's views on assessment and evaluation in education are still valid today (MYK, 2006). These views also coincide with the portfolios targeted in the 2023 Vision Document and the process evaluations of the students (MEB, 2018).

Looking from the past to the present, the transfer of knowledge and skills to meet the needs of education 1.0 agricultural societies has been realized by the method of memorization (Puncreobutr, 2016). When we look at the education 2.0 era, especially with the effect of the developing industry, the workforce has come to the fore, schools are seen as factories and students are seen as products (Pooworavan, 2015). In the Education 3.0 era, the information and production society emerged with the developments in the field of technology and the widespread use of the internet. With the use of developing technology in schools, traditional education methods have also changed (Harkins, 2008). Especially with the spread of the internet and the faster development of technology, the communication between machines has revealed "smart" production (Aksoy, 2017). If Education is 4.0, In the light of these developments, it refers to the innovation and production-oriented process (Harkins, 2008). While in education 2.0 "*teaching technology in education*" turns into "*use of technology in education*" with 3.0, "*design and innovative use of technology in education*" is in question with 4.0. With the fact that it is now easy to access information in the light of the developments experienced, interpreting and making sense of information has become personalized, and the traditional order of education has begun to collapse (Gelen & Demircioğlu, 2020). Therefore, education 4.0 is an education that requires and enables individual learning according to students' interests, wishes, needs and abilities (Heick 2017, Jeschke 2014, Nedeva and Dineva 2012, Teaching Tools 2012). While 0 turns into "*use of technology in education*", with 4.0 it turns into "*design and innovative use of technology in education*". With the fact that it is now easy to access information in the light of the developments experienced, interpreting and making sense of information has become personalized, and the traditional order of education has begun to collapse (Gelen & Demircioğlu, 2020). Therefore, education 4.0 is an education that requires and enables individual learning according to students' interests, wishes, needs and abilities (Heick, 2017, Jeschke, 2014, Nedeva and Dineva, 2012, Teaching Tools, 2012). While 0 turns into "*use of technology in education*", with 4.0 it turns into "*design and innovative use of technology in education*". With the fact that it is now easy to access

information in the light of the developments experienced, interpreting and making sense of information has become personalized, and the traditional order of education has begun to collapse (Gelen & Demircioğlu, 2020). Therefore, education 4.0 is an education that requires and enables individual learning according to students' interests, wishes, needs and abilities (Heick, 2017, Jeschke, 2014, Nedeva and Dineva, 2012, Teaching Tools, 2012). 2020). Therefore, education 4.0 is an education that requires and enables individual learning according to students' interests, wishes, needs and abilities (Heick, 2017, Jeschke, 2014, Nedeva and Dineva, 2012, Teaching Tools, 2012). Therefore, education 4.0 is an education that requires and enables individual learning according to students' interests, wishes, needs and abilities (Heick, 2017, Jeschke, 2014, Nedeva and Dineva, 2012, Teaching Tools, 2012).

There are many factors that trigger changes in society. Particularly, rapid changes in education, technology and science affect societies rapidly (Özdemir, 2011). The goal of creating a smart society that puts people in the center, is efficiency-oriented and prevents social problems has emerged in Japan (Harayama, 2017). The realization of the society 5.0 put forward in Japan can be through educational activities that can provide skills suitable for the era. While literacy and mathematical operations including basic skills were considered sufficient in the past, rapid developments in science and technology require individuals to acquire 21st-century skills (Brown and Martin, 2017, Incoming, 2017, McKinsey Global Institute, 2018).

In our country, the Ministry of National Education wants to realize all these developments with the reforms announced in the 2023 Vision Document (MEB, 2018). It aims to realize the skills required by the age, especially in the face of new developments in science and technology, with "Design Skills Workshops" to be created in schools. With "Software and Design Workshops", one of the categories to be opened under the name of TBA; Robotics and coding, software and design, three-dimensional (3D) design, graphic design, etc., through activities and applications for these fields in workshops to be opened;

- technology literacy,
- algorithmic thinking,
- problem-solving, programming and original product development,
- creating programs with multiple decision structures,
- developing the perception of art and design, which is the main element of robotics and coding,
- developing 3-dimensional thinking, shape and space perception,
- developing fine motor skills,
- developing imagination,
- to be able to put forward a project that he has imagined,
- it is aimed to gain the skills of producing and inventing.

(https://tba.meb.gov.tr/?cpt_services=yazilim-ve-tasarim-atolyesi, 2021).

Changes in science and technology also affect the development of students and require teachers to keep up with these changes. Depending on these developments, the reforms made in education aimed to enable the individual to use the knowledge gained,

combine it with life and produce new ones (Soran et al., 2006). The quality of education is very important in societies with qualified manpower where technology is used effectively and knowledge is produced (Akçatepe, 2013). In order to understand and compare qualifications in Europe and in particular to establish a standard, the European Qualifications Framework has been created, which reflects professional skills up to eight levels consisting of knowledge, skills and competence for each level (https://www.myk.gov.tr/index.php/tr/european-qualifications-framework, 2021).

The European Qualifications Framework as a lifelong learning policy was adopted on 23 April 2008 (European Parliament Council, 2008). Thirty-six countries have participated in this education policy of the European Commission (2002), which defines lifelong learning as an individual's ability to use his knowledge, skills and competence in individual, social and professional fields throughout his life. Turkey, which is among the participating countries, created the Turkish Qualifications Framework on 19 November 2015 in parallel with the lifelong learning policy established in Europe within the scope of the Vocational Qualifications Institution Law 5544 and officially put it into effect (Baykal, 2017). The Turkish Qualifications Framework also covers education and training qualifications carried out by basic education, secondary education and higher education, and education in which the responsible institutions are authorized. All existing and future vocational qualifications, knowledge and skills are included in the Turkish Qualifications Framework (https://www.myk.gov.tr/index.php/tr/tycnin-kapsam, 2021).

The knowledge and skills of the professions determined by the Vocational Qualifications Authority in the Turkish Qualifications Framework should also be associated with the design skill workshops to be established in schools. In the Turkish Qualifications Framework for the profession, which is the equivalent of the workshop to be opened in schools, it is foreseen that it will be very beneficial to provide the knowledge, skills and skills corresponding to the basic levels of that profession in the workshops in these schools. Design and skill workshops,

With the 2023 Vision Document, skill-based training to be held in design skill workshops are also very important in terms of individual development. The concept of talent; It has features such as ability, personal relevance of the skill, job skill level, knowledge and competence, ability to produce and exhibit, and learning ability. These features can be developed and affect the increase in performance (Akar and Balcı, 2016). People become self-actualized to the extent that they can develop their abilities. Learning experiences to be created with design skill workshops to be opened in schools is important for students to discover and develop their talents. When the right learning experiences increase the knowledge, and skills of the students, they will meet the need for self-actualization and be beneficial to society.

Efficient use of the existing human capital in the design skill workshops where the right learning experiences are put to work in schools is very important for the development of countries. In this context, Adam Smith, who sees human abilities as the capital of the country he lives in, laid the foundations of the "Human Capital Theory" (Tilak, 2002; Schultz, 1961). Human capital is defined as human characteristics such as experience, talent, knowledge and ability, which is an important building block of the

organization (Edvinsson and Malone, 1997). Education in schools should include life activities that reveal and develop students' abilities. The equivalent of qualified human capital is people who have received the necessary training. Developing innate talents and increasing their knowledge, skills and abilities are important in terms of the human capital that business organizations need. A person who gains the professional skills required by the age can ensure that his physiological and psychological needs are met by using his existing skills, namely his capital, in an efficient way. One of the most important goals of the design skill workshops opened in schools is to improve the abilities of students and increase their abilities, to make their innate material and spiritual capital ready for the areas needed by society with skill-based experiences (Çetin, 2022).

Science, art, culture, life and sports fields planned to be opened with design skill workshops within the scope of the 2023 Vision can also be in the form of recreational activities. Recreation is the activities that an individual does in his spare time. With recreation, which is the whole of activities that he enjoys doing outside of work or school life, people come together around their common pleasures and develop their socialization skills with the activities they perform (Erkan, 1995). It has been revealed by researchers that recreation, that is, individuals' efficient use of their remaining time from work, life and school, provides many positive contributions to the individual (Plante, 1990). People spend their free time with many activities such as art, sports, music, science and tourism. People become happier by renewing themselves with these activities, and their life away from the monotony and tending to different interests positively affect their development (Çetin, 2022).

With the rapid development of science and technology, developments in the industry have increased the diversity of the workforce and the need for qualified people. Industrialized countries realize the qualified human capital that will meet the diversity of the workforce through education. Brain drain is a phenomenon experienced when human capital specialized in the field with the knowledge, skills and skills grown in countries that cannot keep up with these developments goes to developed countries. Developed countries in the world want not to lose their brain power with the education reforms they make and to keep the social welfare permanent by keeping up with the developments in science and technology. Japan and Germany showed the best examples of this (Çetin, 2022). No matter how rich the reforms, investments and national capital are in education, nations that cannot hold their own human capital will continue to be dependent on other countries. The reforms made in our country with the 2023 Education Vision should aim to develop existing talents in depth and prevent migration to other countries by protecting these talents. The design and skill workshops that will be opened with the 2023 Vision will also prevent the brain drain as they will reveal the different skills of the students.

2. Method

2.1 Research Design

In this study, the criteria for the establishment of Design and Skill Workshops, which are aimed to be established in primary schools, were determined. Then, two different workshops such as radio, caricature were opened in practice schools in accordance with these criteria, and two different modular programs were developed to be used in these workshops. These modular programs were implemented in these workshops during an academic year. The educational impact of these workshops was measured quantitatively and qualitatively (with self-evaluation form, student letters, parent interviews, radio recordings, etc.), and the data obtained were analyzed qualitatively and quantitatively has been interpreted.

In order to achieve these aims of the research, quantitative and qualitative data were collected and analyzed. The obtained qualitative data were used to explain the quantitative data and to provide internal consistency. For this reason, "explanatory design", one of the mixed research methods, was used in the research. According to Creswell (2003), qualitative data is collected after predominantly quantitative data are collected and analyzed in this design. Priority is often in quantitative data. Qualitative data is mainly obtained to increase quantitative data. Data analysis is interrelated and often combined in data interpretation and discussion sections. This design is particularly useful in explaining unexpected research findings or relationships (Baki and Gökçek, 2012).

This study was carried out in 2 stages. The first stage is in the type of descriptive analysis in the Survey model. In this stage, the criteria of the two workshops were determined by expert opinions. The workshops were tried to be established in the school within the framework of these criteria. To achieve the objectives of the study, quantitative and qualitative data were collected and analyzed. The qualitative data obtained were utilized to explain the quantitative data and to ensure internal consistency. Thus, after the establishment of two sample workshops in the second stage, the knowledge and skills of the students who received training from this workshop were analyzed through post-application self-evaluation forms. In addition, the letters containing their feelings and thoughts about the workshops were analyzed with the Maxqda 2020 program. Sample workshop applications were examined with these forms, and the products obtained in the workshops were exhibited in the exhibition. Hence, the results about the effectiveness of the workshop establishment criteria in gaining skills were revealed and evaluated.

2.2 Universe and Sample/ Study Groups

All necessary permissions have been obtained from the Ministry of National Education in Turkey so as to carry out the research in line with its objectives. Within the framework of these permissions, the Radio and Caricature workshops, which were envisaged to be implemented in the research, were selected with the typical case sampling method, which is one of the purposive sampling methods. Typical case sampling is the case that allows us to reach results that are sufficient to explain the information or phenomenon in general

among the similar ones in the universe (Patton, 2005). Typical case sampling also represents the universe. However, it does not reflect situations different from the universe in terms of basic properties (Marshall and Rossman, 2014). As a result of the workshops, quantitative and qualitative data were obtained and student workshop activities were exhibited. The classes in which the workshops will be held were applied to the classes determined by the school administration. The studies carried out both in the caricature workshop and the radio workshop was carried out with "volunteer" students.

2.3 Data Collection Tools

In accordance with the main objective and sub-objectives of the research, in the first stage, "workshop criteria" were formed by taking expert opinions. As a result of expert opinions, 14 criteria for the creation of the Radio Workshop, 13 criteria for the Caricature Workshop were identified. Modular programs to be implemented in the workshops were developed and teachers were selected to implement these programs developed in the workshops. In this field, the level of proficiency and educational competence were the criteria for teacher selection. The first stage of the study was completed by determining the workshop criteria to be opened on site with control forms by experts.

The functioning of the design and skill workshops was created by making use of the modular program preparation application of the General Directorate of Lifelong Learning (according to the united annual plan example in the Journal of Notifications numbered 2551. The self-evaluation forms created within the framework of the module program were finalized by taking the opinions of two experts on the subject. The radio workshop self-evaluation form consists of 14 questions, and the caricature workshop self-assessment form consists of 3 questions. These questionnaires involve 5-point Likert-type items as "strongly agree", "agree", "neither agree nor disagree", "disagree" and "strongly disagree".

2.4 Reliability and Validity

The quantitative data were analyzed with SPSS analysis. On the other hand, the qualitative data were analyzed with the MAXQDA program. The findings were combined in line with the research questions and the qualitative findings were evaluated and interpreted to control and support the quantitative findings. The reliability analyzes of the self-evaluation forms of the radio and caricature workshop were made. The Cronbach alpha reliability coefficient was calculated to measure the reliability of the items developed by the researchers (Büyüköztürk et al., 2008, Özdamar, 1999). For reliability analysis; the discrimination indexes, difficulties, standard deviation and reliability coefficients of the test were obtained. The item difficulty index shows the difficulty level of each item. The item discrimination index reveals the extent to which each item measures the feature it is intended to measure. The item discrimination power value is between 0 and 1. When this value approaches 1, it indicates that the number of people who answered correctly to the item in question increased and the item was easy, on the other hand, if it approached 0, the item became more difficult and the number of

those who answered correctly decreased. In the item-test-total correlation, no item discrimination power (r_{jx}) was found below .20. At the same time, the p value is 0 in the independent groups t-test conducted between the lower and upper 27% slices. Items with a score above 5 were also analyzed and it is significant since all p values are $p \leq .05$. As a consequence of the reliability analysis made with these items, the Cr. Alpha reliability coefficient of the form for the radio was Cr. A radio = 0.88, Cr. A caricature = 0.86 was found. These values show that the forms have a high level of reliability.

2.5 Data Collection and Analysis

Self-assessment forms including 13 questions were applied to the students who participated in the Caricature workshop. This workshop has 14-questions and was a 20-hour workshop. The questions in the self-assessment forms created during data collection were prepared in accordance with the modular program. The applied self-evaluation forms were analyzed quantitatively and the results were presented by combining them with the letters (qualitative data) written by the students for the workshop activities.

The items in each form were arranged according to the Likert rating scale, with values between 1 and 5. The maximum score that can be obtained from the radio form is 70 and the minimum score is 14. The maximum score that can be obtained from the caricature form is 65 and the minimum score is 13. The following value ranges were taken into account in the interpretation of the total score data obtained: 1.00-1.80 Not at all positive, 1.81-2.60 Slightly positive, 2.61-3.40 Partially positive, 3.41-4, 20 Very positive, 4.21-5.00 Totally positive. Within the scope of the research, the significance level (p) for all results was taken as 0.05. In accordance with the aims of the research; arithmetic mean, mode, median, percentage, frequency, variance and standard deviation statistics were applied and graphics were created. In reliability analysis, Cr. Alpha values, lower and upper 27% inter-slice p values, and correlation values between total scores were utilized.

As to qualitative data analysis, the MAXQDA qualitative data analysis program was used. Firstly, the obtained data were written as participants' expressions. Second of all, the data was coded and categorized. The themes were created. Finally, theme clouds and content schemes were formed and these findings were used as supporting data in the analysis of quantitative data.

3. Findings

In this section, the findings obtained as a result of the determination of the criteria for the establishment of radio and caricature workshops, the solution of the data obtained with the data collection tools for the self-evaluation of the students as a result of the application of the developed modular programs in the workshops are included.

3.1 Findings Regarding the Radio Workshop Establishment Criteria

In order to determine the criteria for the establishment of the radio workshop, interviews were held with experts from the Communication Faculty of Ondokuz Mayıs University. It was learned from the Faculty of Communication that it is more beneficial to make radio

broadcasts over the web in schools because the costs of terrestrial broadcasts are very high. According to this information, the web route was preferred for radio broadcasting. The materials and hardware equipment that can be used in a radio workshop for radio broadcasting over the web have been determined according to the researches and expert opinions, and are shown in the table below.

Table 3.1: Radio Workshop Establishment Criteria

1. RCS Sound Software Programı
2. Mackie Cr3 Active Studio Monitor (1 pcs)
3. Spekon st-54 Microphone (2 pcs)
4. Suncom 232104 Computer case ı3+120gb ssd+2tb
5. Behringer Headphones
6. Lastvoice nb39 Microphone Stand (2 pcs)
7. Midex mdx-8 Channel Mıxer
8. Led Monitor (large size)
9. 4 pcs Earphones
10. 1 Headphone amp
11. Audio Mixer
12. Required Cables and Connectors for İnstallation
13. Radio Furniture
14. Web Page Domain and Server
15. Audio Editor and Recorder Program

Whether the radio workshop meets the criteria or not was checked by experts and audited under the created form. The workshop, supervised by the expert and technical committee, was found suitable for the opening and the first phase of the research for the Radio workshop was completed.

In order to ensure the healthy functioning of the workshops, a radio module was created by the "radio board" consisting of researchers and teachers at the school. The radio program (by using the draft) prepared by the teachers responsible for the planned programs of the radio module together with the students was made ready for broadcasting. In the module program developed by the radio board, it was decided to make programs such as reading time, sports hour, science hour, certain days and weeks, education calendar, our values, fairy tale time and radio theater. Among the program types are 100 Great Turks, which Samsun Provincial Directorate of National Education carried out in previous years, Reading Time for our city, which is still practiced today; Workshops were held with programs under the name of the Education Calendar published by the Ministry of National Education and the Year of Hacı Bektaş Veli and Yunus Emre, announced by UNESCO in 2021. Types of broadcasting programs Sports time, Physical Education; science time, Science and Mathematics lesson; education calendar, reading time, fairy tale time, Turkish lesson; 100 Great Turkish projects have been associated with the Social Studies course, our values, with the Yunus Emre, Hacı Bektaş-ı Veli Religious Culture Ethics course, and radio programs have been prepared under the responsibility of the teacher in the relevant branch. With the module developed

by the Board, it was decided that all students could participate and the workshops were actually started. In addition, a consultant teacher responsible for the workshops was determined on the radio board.

Radio programs were prepared in cooperation with students and teachers in accordance with the draft of the radio program text created under the radio module and presented by the students. The live broadcasts made in the radio workshop were carried out by 48 students for 689 minutes and 45 seconds with a total of 152 live broadcasts under the developed module. Along with the live broadcasts made in the radio workshop, all the texts of the program were recorded.

3.2 Findings Regarding the Establishment Criteria of the Caricature Workshop

First of all, the experts of the Caricature Club, which operates under the Faculty of Fine Arts of Ondokuz Mayıs University, were interviewed about the materials required for the establishment of the caricature workshop. Then, the materials that should be found in the caricature workshop were determined by contacting the people who were caricaturists. The determining criteria are shown in the table below.

Table 3.2: Caricature Workshop Establishment Criteria

1. Classroom
2. Student desk and chair suitable for students
3. Sketch Paper (A4, A3)
4. Pencil (2H, 3H, 2B, 4B, 6B) eraser, sharpener, drawing block, cardboard
5. Pen (different colors)
6. Colored felt-tip pens, watercolor
7. Scissors, brush
8. Ruler, miter
9. A4 Size Transparency Paper
10. Desktop computer
11. Board Market with eraser (Black, Red, Blue), Board Rubber
12. White Drawing Board
13. Student portfolio

The 13-item criteria that should be in the caricature workshop were met in Kuşkayası Primary School and made ready to be applied to 4th-grade students. In the 2020/2021 academic year, formal education was suspended due to pandemic conditions. However, since the crowded classes in village schools were divided into two and continued formal education in schools for two days a week, the workshops could only be planned according to a group of ten students in the 4th grade, which were divided into two.

The students of the place where the caricature workshop was planned to be opened became their own classrooms. After the approval of the other criteria required for the workshops planned as a recreational activity, the first phase, which is the workshop establishment phase, was completed. The area where the caricature workshop activities are carried out is indicated in the image below.

There is no module for the caricature workshop in our country, especially at the primary school level. Under the opinions of experts in the field of caricatures, a module consisting of 20 hours was created to be implemented in primary school. The created module generally belongs to our teacher, who also works as a caricature teacher in our workshop. The developed and finalized module was applied to the 4th-grade students of Kuşkayası Primary School outside of class hours. 20-hour workshops, implemented by a teacher who is a master teacher in the field of caricatures and who are expert in his field (qualified), started with 10 students, but 9 of our students successfully completed them due to the covid 19 pandemic.

4. Evaluation of Students Attending Radio and Caricature Workshops

The findings regarding the self-evaluation of the students who participated in the workshops are given below.

4.1 Findings Regarding the Self-Assessment of the Students as a result of the Application of the Modular Program Developed for the Radio Workshop

Self-assessment forms were applied to the students and at the same time, letters were written from the students containing their feelings and thoughts.

4.1.1 Quantitative Findings for Students' Self-Evaluation as a result of the Application of the Modular Program Developed for the Radio Workshop

Radio workshop studies were carried out by 48 students at Kuşkayası Primary/Secondary School. The self-evaluation forms created under the module developed as a result of the workshops were applied.

In the table below, the frequency and percentage values of the students' opinions about the workshops are presented.

Table 3.3: Radio Workshop Self-Evaluation Opinions Frequency and Percentages

Radio Self-Evaluation Items	n	X	ss	Strongly agree		Slightly agree		Neither agree nor disagree		Disagree		Strongly disagree		Total	
				f	%	f	%	f	%	f	%	f	%	F	%
1. I have knowledge of the radio.	48	4,68	0,58	35	72,9	12	25	-	-	1	2,1	-	-	48	100
2. I make the necessary preparations before the radio program.	48	4,14	1,01	22	45,8	15	31,3	9	18,8	-	-	2	4,2	48	100
3. I get excited while presenting a radio show.	48	4,31	0,97	27	56,3	13	27,1	5	10,4	2	4,2	1	2,1	48	100
4. I pay attention to punctuation while presenting the program text.	48	3,83	0,88	12	25,0	18	37,5	17	35,4	-	-	1	2,1	48	100
5. I pay attention to emphasis, intonation and pronunciation while	48	3,85	0,92	13	27,1	18	37,5	15	31,3	1	2,1	1	2,1	48	100

presenting the program text.															
6. I can give impromptu speeches during the program.	48	3,18	1,28	10	20,8	7	14,6	20	41,7	4	8,3	7	14,6	48	100
7. In impromptu speeches, I use Turkish versions of the words taken from foreign languages and not yet settled in our language.	48	3,72	1,44	21	43,8	10	20,8	6	12,5	5	10,4	6	12,5	48	100
8. I use appropriate transitional and connecting phrases in impromptu speeches during the program.	48	3,70	1,05	13	27,1	14	29,2	17	35,4	2	4,2	2	4,2	48	100
9. I think my self-confidence increases as I present a radio program.	48	4,16	0,95	21	43,8	18	37,5	6	12,5	2	4,2	2	4,2	48	100
10. I can communicate more easily with my friends and teachers after radio programs.	48	3,87	1,02	17	35,4	12	25,0	16	33,3	2	4,2	1	2,1	48	100
11. As I present a radio program, I can attend classes and express my thoughts more easily.	48	4,08	0,94	20	41,7	15	31,3	10	20,8	3	6,3	-	-	48	100
12. As I present a radio program, I can express myself to my teachers without difficulty.	48	3,95	0,94	18	37,5	12	25,0	16	33,3	2	4,2	-	-	48	100
13. This workshop was very enjoyable.	48	4,60	0,73	35	72,9	8	16,7	4	8,3	1	2,1	-	-	48	100
14. I would like to attend the design skill workshops again.	48	4,27	1,19	31	64,6	7	14,6	5	10,4	2	4,2	3	6,3	48	100

In Table 3.3, when the frequency and percentage values of the radio workshop self-evaluation student opinions questionnaire are examined, it is seen that the highest data is in the first item. In the 1st article, “I know about the radio.” The arithmetic mean of the item was determined as X=4.68 standard deviation ss=0.58. Since the arithmetic mean of this item is in the range of “4.21-5.00”, it is seen that the students gave a completely positive answer to this item. The number of students who gave the answer "I totally agree" with this item is 35, and the percentage is 72.9. The number of students who answered as partially agree is 12 and the percentage is 25. The number of students giving the answer "I do not agree" is 1 and their percentage is 2.1.

In Table 3.3, when the frequency and percentage values of the radio workshop self-evaluation student opinions questionnaire are examined, it is seen that the lowest data is in the 6th item. Item 6, “During the program, I can make impromptu speeches that are not dependent on the text.” The arithmetic mean of the item was determined as X=3.18 standard deviation sd=1.28. Since the arithmetic mean of this item is in the range of “2.61-

3.40", it is seen that the students gave a partially positive answer to this item. The number of students who gave the answer I strongly agree with this item is 10, and the percentage is 20.8. The number of students who answered as I partially agree is 7, and the percentage is 14.6. The number of students who gave the answer neither agree nor disagree is 20, and the percentage is 41.7. While the number of students who disagree is 4, their percentage is 8.3. The number of students who say they do not agree at all is 7, their percentage is 14.6.

4.1.2 Qualitative Findings for Students' Self-Evaluation as a Result of the Application of the Modular Program Developed for the Radio Workshop

The letters written by the students for the radio workshop, including their feelings and thoughts, are presented in the code cloud figures 3.1 and 3.2 with the word cloud analysis made through the MAXQDA program.

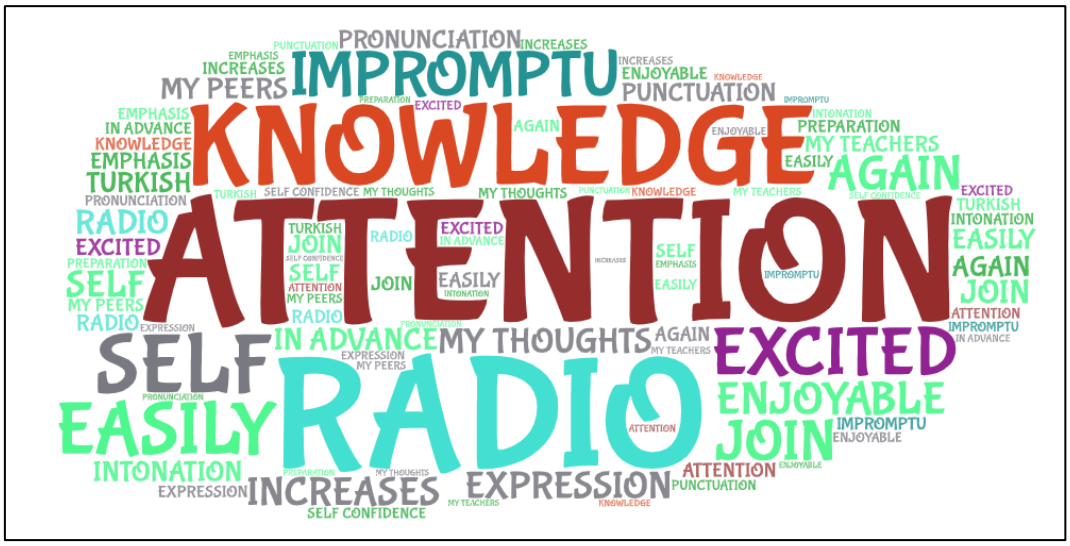

Figure 3.1: Word analysis cloud containing students' feelings and thoughts for the radio workshop

When Figure 3.1 is examined, it is seen that the students have knowledge about the radio; they were prepared before making the program; they are excited about presenting the program; they pay attention to punctuation marks, emphasis, intonation and pronunciation while presenting the program text; what they can do despite their excitement in impromptu speeches that are not dependent on the text; they pay attention to use the Turkish equivalents of words taken from foreign languages in impromptu speeches; they pay attention to use appropriate transitional expressions in impromptu speeches, increasing their self-confidence; they communicate more easily with their friends and teachers as they make a program; increased their participation in classes; they can express their feelings and thoughts without hesitation; they enjoyed and enjoyed their radio workshop.

The code model created by the analysis of the students' feelings and thoughts for the radio workshop is presented in Figure 3.2:

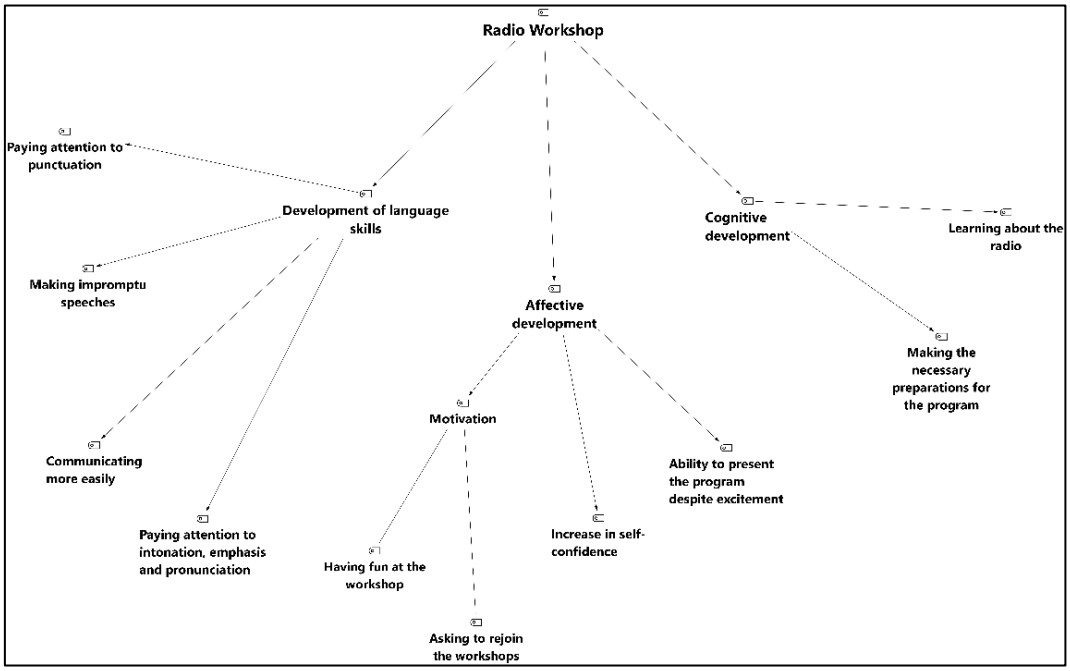

Figure 3.2: Hierarchical code-subcode model for student letters about Radio Workshop

When examined, it is seen that the letters written about the radio workshop are handled under three categories as "development of language skills", "affective development" and "cognitive development". First of all, when we look at the language skills category, it is seen that students use expressions such as paying attention to punctuation, making impromptu speeches, communicating more easily, and paying attention to emphasis, intonation and pronunciation. When we look at the affective development category, it is seen that they include expressions of motivation, increased self-confidence and being able to present the program despite the excitement. In the cognitive development category, it is seen that there are expressions such as getting basic information about radio and making the necessary preparations for the program.

4.1.3 As a Result of the Application of the Modular Program Developed for the Radio Workshop, the Evaluation and Interpretation of the Quantitative and Qualitative Findings of the Students' Self-evaluation

In Table 3.3, the 9th item in the radio workshop self-assessment student opinions questionnaire is *"I think my self-confidence increases as I present a program on the radio."* The arithmetic mean of the item was determined as X=4.16. It is seen that the students gave a completely positive response to this item. Considering the data in Figure 3.1 and Figure 3.2, which gives the analysis of the letters written by the students, it was seen that the students stated that their self-confidence improved with the radio programs they made. According to the data obtained from the letters written by the students about the radio workshop, it is seen that they made statements supporting this item of the self-evaluation questionnaire. These data show that the experiences of students taking part in live broadcasts increase their self-confidence.

In Table 3.3, the 10th item in the radio workshop self-evaluation student opinions questionnaire is *"I can communicate more easily with my friends and teachers after the radio*

program presentations." The arithmetic mean of the item was determined as X=3.87. It is seen that the students gave a very positive response to this item. Considering the data in Figure 3.1 and Figure 3.2, which gives the analysis of the letters written by the students, it was seen that the students working in the radio workshop were able to communicate more easily with their friends and teachers. According to the data obtained from the letters written by the students about the radio workshop, it is seen that they made statements supporting this item of the self-evaluation questionnaire. These data prove that students' communication skills improved when they took part in the radio workshop.

In Table 3.3, the 11th item in the radio workshop self-evaluation student opinions questionnaire is *"As long as I present a program on the radio, I can participate in the classes and express my thoughts more easily."* The arithmetic mean of the item was determined as X=4.16. It is seen that the students gave a very positive response to this item. Considering the data in figures 3.1 and 3.2 of the figure, which gives the analysis of the letters written by the students, it was seen that the students who took part in the radio workshop were able to express themselves easily in the classroom activities. According to the data obtained from the letters written by the students about the radio workshop, it is seen that they made statements supporting this item of the self-evaluation questionnaire.

In Table 3.3, the 12th item in the radio workshop self-evaluation student opinions questionnaire is *"As long as I present the radio program, I can express myself to my teachers without difficulty."* The arithmetic mean of the item was determined as X=3.95. It is seen that the students gave a very positive response to this item. Considering the data in figures 3.1 and 3.2 of the figure, which gives the analysis of the letters written by the students, it was seen that the students who took part in the radio workshop were able to express themselves without any difficulty to their teachers. According to the data obtained from the letters written by the students about the radio workshop, it is seen that they made statements supporting this item of the self-evaluation questionnaire. These data reveal that the students who make programs in the radio workshop improve their ability to express themselves.

In Table 3.3, the 13th item in the radio workshop self-evaluation student opinions questionnaire is *"This workshop was very enjoyable for me."* The arithmetic mean of the item was determined as X=4.60. It is seen that the students gave a completely positive response to this item. Considering the data in figures 3.1 and 3.2, which give the analysis of the letters written by the students, it was seen that the students who took part in the radio workshop stated that they enjoyed the program. According to the data obtained from the letters written by the students about the radio workshop, it is seen that they made statements supporting this item of the self-evaluation questionnaire. These data reveal that the students who made a program in the radio workshop had a lot of fun and enjoyed conducting these workshops.

In Table 3.3, the 14th item in the radio workshop self-evaluation student opinions questionnaire is *"I would like to participate in the design skill workshops again."* The arithmetic mean of the item was determined as X = 4.27. It is seen that the students gave a completely positive response to this item. When we look at the data in figures 3.1 and 3.2, which

gives the analysis of the letters written by the students, it is seen that the students who took part in the radio workshop stated that they wanted to make a program again or to participate in other workshops. According to the data obtained from the letters written by the students about the radio workshop, it is seen that they made statements supporting this item of the self-evaluation questionnaire. These data show that the students who make programs in the radio workshop do these activities lovingly and willingly.

In the research, the determination of the establishment criteria of the radio and caricature workshops, which was stated in the first sub-goal, took place. In the creation of the workshop, particular attention was paid to ensure that the following criteria were determined:

1) Criteria for workshop establishment (physical space, equipment, consumables, technologies used);
2) Modular program in which workshops will be carried out;
3) Professional competence of the person who will conduct the workshop;
4) Organization of workshops by the school administration.

Similarly, Alkan (1992), on the other hand, mentions four elements in order to create an effective and efficient educational environment. These are professional competence, the physical structure of the educational environment, necessary equipment for educational activities (tools, equipment, consumables and technologies used) and organization. As stated in Alkan (1992), the workshop setups were created in four stages and it was deemed appropriate to open with the control of experts.

The modular programs developed for the workshops include activities that include theory as well as practice and include 21st-century skills. Farabi, who was the first Turkish intellectual to express his opinion on skill-based education, defined theory as the art of conveying theoretical virtues, and practice as a method of creating moral virtues and business art (Akyüz, 1989). It is planned to give theory and practice as a whole in the workshops (MEB, 2019). In addition, the content of workshops that includes 21st-century skills, what the World Health Organization should have in a healthy person; interpersonal communication, communication, self-awareness, empathy, problem-solving, decision making, and coping with stress.

Interests, desires and abilities were prioritized in the workshops, and those who were willing to work in the workshop were chosen primarily by those who were willing to work in the workshop. Another issue that the school administration and the researcher pay attention to is that the professional competence of the teacher who will work in the workshop is suitable for the workshop. When the results of Öztürk's (2019) study are examined, it is stated that the interests and needs of the students who will take part in the workshop should be taken into consideration and that the teacher should have received training in accordance with the workshop philosophy. In another study, Demirata (2020) examined the qualifications and needs of teachers assigned to the workshops in order to improve the quality of design and skills workshops. In his study, he stated that the teachers working in the workshop should be trained in terms of pedagogical and technical competence and that the teachers who will work in these

workshops should be taken by the Ministry of National Education and YÖK. In the study of Gündüz (2020), almost all of the teachers stated that they found the training provided by the Istanbul Provincial Directorate of National Education to be insufficient for the use of workshops.

4.2 Findings Regarding the Self-Evaluation of the Students as a Result of the Application of the Modular Program Developed for the Caricature Workshop

As a consequence of the implementation of the caricature modular program developed for the caricature workshop, self-assessment forms were applied to the students for self-evaluation, and at the same time, letters were written from the students containing their feelings and thoughts.

4.2.1 Quantitative Findings for Students' Self-Evaluation as a Result of the Application of the Modular Program Developed for the Caricature Workshop

Caricature workshop studies started with 10 students at Kuşkayası Primary School, but were completed with 9 students due to the Covid-19 Pandemic. The self-evaluation forms created under the module developed as a result of the workshops were applied. In Table 3.4, the frequency and percentage values of the students' opinions about the workshops are presented.

Table 3.4: Caricature Workshop Self-Evaluation Opinions Frequency and Percentages

Caricature Self-Evaluation Items	**n**	**X**	**ss**	**Strongly agree**		**Slightly agree**		**Neither agree nor disagree**		**Disagree**		**Strongly disagree**		**Total**	
				f	%	f	%	f	%	f	%	f	%	F	%
1. I gained sufficient knowledge about caricature through workshops.	9	5	0.00	9	100	-	-	-	-	-	-	-	-	9	100
2. I can draw human body parts.	9	4,55	0,53	5	55,6	4	44,4	-	-	-	-	-	-	9	100
3. I can make drawings that reflect emotions.	9	4,77	0,44	7	77,8	2	22,2	-	-	-	-	-	-	9	100
4. I can draw a human figure using geometric shapes.	9	4,55	0,52	5	55,6	4	44,4	-	-	-	-	-	-	9	100
5. I can draw human body movements.	9	4,33	0,86	5	55,6	2	22,2	2	22,2	-	-	-	-	9	100
6. I can draw animal figures.	9	4,33	0,70	4	44,4	4	44,4	1	11,1	-	-	-	-	9	100
7. I can write a story.	9	4,55	0,52	5	55,6	4	44,4	-	-	-	-	-	-	9	100
8. I can draw characters for my story.	9	4,66	0,70	7	77,8	1	11,1	1	11,1	-	-	-	-	9	100
9. I can cartoonize my story with speech bubbles.	9	4,66	0,50	6	66,7	3	33,3	-	-	-	-	-	-	9	100
10. I can cartoonize any subject without help.	9	4,33	0,70	4	44,4	4	44,4	1	11,1	-	-	-	-	9	100
11. This workshop was very enjoyable for me.	9	5	0,00	9	100	-	-	-	-	-	-	-	-	9	100

12. My self-confidence increased thanks to the Caricature Workshop.	9	4,88	0,33	8	88,9	1	11,1	-	-	-	-	-	-	9	100
13. I would like to rejoin the design skill workshops.	9	4,77	0,66	8	88,9	1	11,1	-	-	-	-	-	-	9	100

Looking at Table 3.4, it is seen that items 1 and 11 show the highest data. When the frequency and percentage values of the caricature workshop self-evaluation student opinions questionnaire were examined in 3.4, the 1st item was "I gained sufficient knowledge about caricature through caricature workshops." The arithmetic mean of the item was determined as X = 5.00 standard deviation, ss = 0.00. Since the arithmetic mean of this item is in the range of "4.21-5.00", it is seen that the students gave a completely positive answer to this item.

In item 11, "This workshop was very enjoyable for me." The arithmetic mean of the item was determined as X=5.00 standard deviation sd = 0.00. Since the arithmetic mean of this item is in the range of "4.21-5.00", it is seen that the students gave a completely positive answer to this item. The number of students who gave the answer I absolutely agree with this item is 9, and the percentage is 100.

4.2.2 Qualitative Findings for Students' Self-Evaluation as a Result of the Application of the Modular Program Developed for the Caricature Workshop

With the word cloud analysis of the letters written by the students for the caricature workshop, which includes their feelings and thoughts, using the MAXQDA program, code cloud 3.3 and Figure 3.4 are presented.

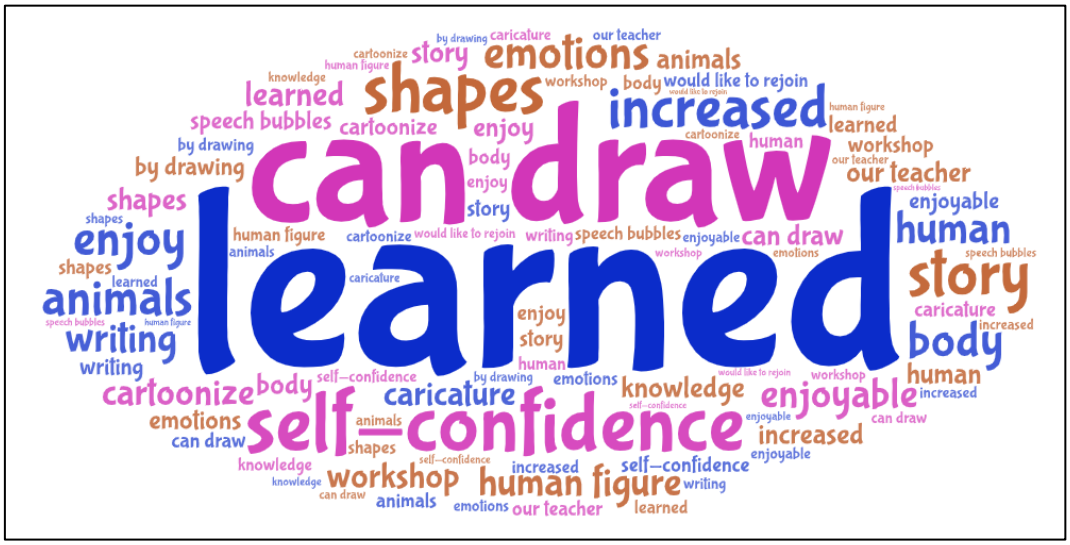

Figure 3.3: Word analysis cloud containing students' feelings and thoughts for the caricature workshop

When Figure 3.3 is examined, it is seen that the students learned the caricature; they can draw human body parts; they can make drawings in response to emotions; they made animal and human drawings with geometric shapes; they can caricatureize the

story by drawing characters in their stories; they enjoyed and had fun with their workshops; It was seen that they mentioned that they wanted to participate in the design skill workshops again.

The code model created by the analysis of the students' feelings and thoughts for the caricature workshop is presented in Figure 3.4.

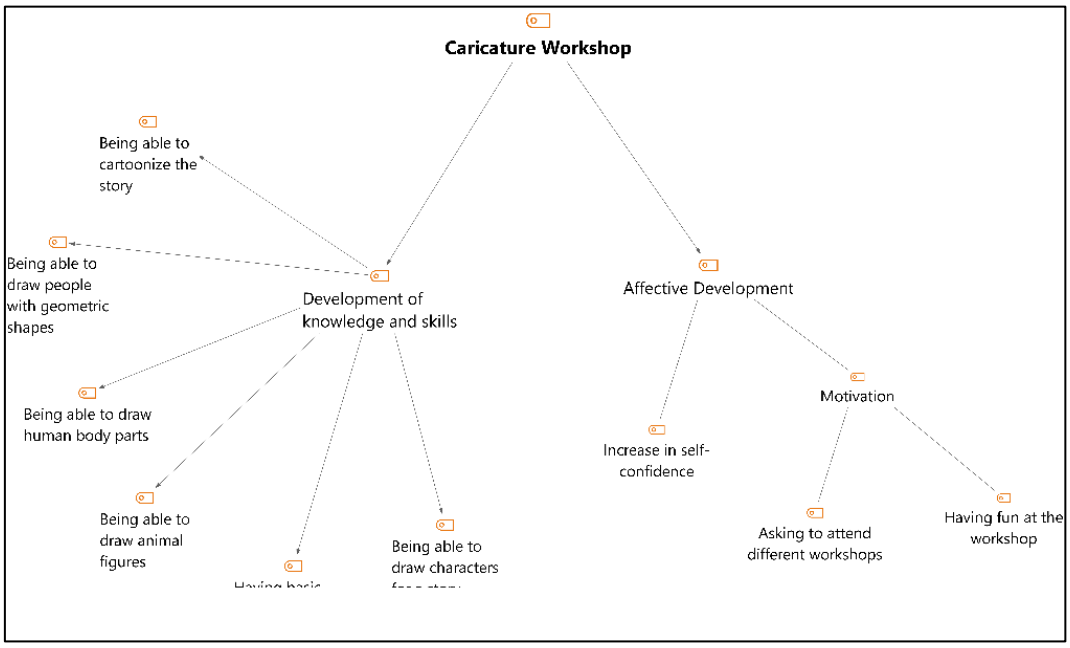

Figure 3.4: Hierarchical code-subcode model for student letters about Caricature Workshop

When Figure 3.4 is examined, it is seen that the letters written about the caricature workshop are handled under two categories as "development of knowledge and skills" and "affective development". First of all, when we look at the category of development of knowledge and skills, it is seen that students use expressions such as having basic knowledge about caricature, drawing people with geometric shapes, drawing body parts, drawing animal figures, drawing story characters. When we look at the affective development category, it is seen that there are expressions such as increasing self-confidence, the desire to participate in different workshops depending on motivation, and the enjoyment of the workshops.

4.2.3 Evaluation and Interpretation of the Quantitative and Qualitative Findings for Students' Self-Assessment as a Result of the Application of the Modular Program Developed for the Caricature Workshop

In Table 3.4, the 11th item in the caricature workshop self-assessment student opinions questionnaire is "I can caricature any subject without help." The arithmetic mean of the item was determined as X = 5.00. It is seen that the students gave a completely positive response to this item. When we look at the data in figures 3.3 and 3.4, which give the analysis of the letters written by the students, it is seen that the students who took part in the caricature workshop stated that they found the workshop fun and enjoyable. According to the data obtained from the letters written by the students about the

caricature workshop, it is seen that they made statements supporting this item of the self-evaluation questionnaire.

In Table 3.4, the 12th item in the caricature workshop self-assessment student opinions questionnaire is "I can caricature any subject without help." The arithmetic mean of the item was determined as X=4.88. It is seen that the students gave a completely positive response to this item. When we look at the data in figures 3.3 and 3.4, which give the analysis of the letters written by the students, it is seen that the students who took part in the caricature workshop stated that their self-confidence increased with the workshops. According to the data obtained from the letters written by the students about the caricature workshop, it is seen that they made statements supporting this item of the self-evaluation questionnaire.

In Table 3.4, the 13th item in the caricature workshop self-evaluation student opinions questionnaire is "I would like to participate in the design skill workshops again." The arithmetic mean of the item was determined as X = 4.77. It is seen that the students gave a completely positive response to this item. When we look at the data in figures 3.3 and 3.4, which give the analysis of the letters written by the students, it is seen that the students who took part in the caricature workshop expressed that they wanted to participate in the workshops again. According to the data obtained from the letters written by the students about the caricature workshop, it is seen that they made statements supporting this item of the self-evaluation questionnaire.

According to the data obtained, it is seen that the students showed improvement in language skills, affective and cognitive areas in the radio workshop. According to the data revealed in the field of language skills development, it is seen that students pay attention to punctuation marks, make impromptu speeches, pay attention to accent, intonation and pronunciation, and communicate more easily with their friends teachers. In the live broadcasts made in the radio workshop, it is seen that especially in transport-centered schools, students both gain communication skills and use Turkish carefully and carefully. The students who gain communication skills both enjoy the workshops and can control their excitement with the increase in their self-confidence, which emerges as the gains that the radio workshop has provided for the students. Gündoğan and Can (2020) stated in their study that workshops provide learning while having fun. It was determined that the teachers who participated in the study of Bayraktar and Yalçın (2021) thought that the students who participated in the workshop would contribute to the development of various skills such as communication, and cooperation and leadership.

Considering the 21st-century skills explained by the 21st Century Learning Platform through radio workshop studies; It contributes to the acquisition of skills such as communication and cooperation, information literacy, media literacy, information-media technology literacy, flexibility and adaptability, entrepreneurship and self-management, leadership and responsibility. With the experiment workshops, it is aimed both to gain 21st-century skills and to gain collaborative learning, critical thinking, problem solving and communication skills (Deneyap, 2020). In their study, Gündüz (2020) stated that the use of design skill workshops enabled students to develop cooperative learning, creative thinking and manual skills the most.

According to the data obtained as a result of the analyzes made, it is seen that the students show improvement in the acquisition of knowledge and skills and affective areas in the caricature workshop. According to the data emerging in the field of development of knowledge and skills, it was seen that the students were informed in the field of caricature, they could draw human and animal figures, and they could caricature by drawing characters for the story they wrote. The fact that the caricature workshop is enjoyable for the students shows that it provides learning while having fun. In addition, it increases students' motivation and self-confidence are other indicators of the development of the affective field. In the study by Bayraktar and Yalçın (2021), almost all of the participating teachers stated that they thought that the workshops would reveal the unique abilities of the students and help improve their self-confidence of the students. Teachers who expressed their opinions in the study of Gündoğan and Can (2020) stated that the workshops provide learning with fun and improve their manual skills.

The workshop was carried out as a recreational activity at the school. Students have provided by spending their extracurricular time in educational environments that allow them to use their abilities efficiently. The quality of the individual's leisure time increases the quality of society. Since it provides the individual's life satisfaction, it becomes successful and beneficial to society by using the skills he has at work or school more healthily (Morrow, 1975; Hemingway, 1996). In the study of Gündoğan and Can (2020), teachers stated that students develop positive attitudes towards school and use their spare time efficiently with design skill workshops. Another result of the analyzes obtained from the students is that they are willing to participate in the workshops again.

The caricature workshop enabled students to learn while having fun by revealing their talents. While providing the development of hand skills of students who are talented in the field of visual arts, withdrawing, they also have 21st-century skills explained by the World Health Organization; It is seen that it contributes to the acquisition of skills such as interpersonal communication, communication, self-awareness, empathy, problem-solving, decision making, coping with stress, coping with emotions, creative thinking and most importantly critical thinking (WHO, 1997). Teachers who expressed their opinions in the study of Gündoğan and Can (2020) stated that the workshops provide learning with fun and improve their manual skills.

5. Conclusion

It is seen that the self-evaluation findings applied for the self-evaluation of the students at the end of the study in the radio workshop, whose criteria were determined and implemented under the modular program, were positive.

1) Considering the data obtained from the letters of the students expressing their feelings and thoughts about the radio workshop, the results obtained from the self-assessment student opinion questionnaire support the results.
2) The arithmetic mean of the answers given in the self-assessment student opinion questionnaire in the radio workshop is low when compared to the opinions of the caricature and model airplane workshop student questionnaire.

3) In the radio workshop studies, the students answered completely positively that they had the most knowledge about the radio, but they gave a partially positive opinion on the ability to make impromptu speeches while broadcasting live on the radio. Therefore, it is seen that the students have difficulties in the speeches they will make without depending on the text during the radio program.
4) According to the data obtained from the radio workshop, the students' attention to punctuation marks during the program, their ability to communicate easily with their environment, their ability to pay attention to emphasis, intonation and pronunciation during their speech, and to make impromptu speeches, albeit partially, show that their language skills have improved.
5) According to the data obtained from the radio workshop, with the development of language skills of the students; In the field of communication, interpersonal communication, self-awareness, decision making, and affective development; it is seen that it contributes to the acquisition of 21st-century skills such as coping with stress and coping with emotions. In addition, it can be said that it provides the acquisition of communication and cooperation, information literacy, media literacy, information-media technology literacy, flexibility and adaptability, entrepreneurship and self-management, leadership and responsibility skills.
6) Since the radio workshop was enjoyable and fun, it is seen that the students' desire to participate in the design skill workshops again strengthened and increased their motivation.
7) With the radio workshop studies, it can be concluded that the students have developed a positive attitude towards the school.
8) It can be said that the students who participated in the caricature workshop gained lifelong learning skills by exhibiting the stories they caricatured in the exhibition.
9) The arithmetic mean of the answers given in the self-assessment student opinion questionnaire in the caricature workshop is the highest when compared to the radio and model airplane workshop student questionnaire.
10) In the caricature workshop, the students answered completely positively that they had the most knowledge and enjoyment of caricatures. Especially when compared to the radio and model aircraft workshop, the students who participated in the caricature workshop enjoyed the most. Therefore, it is seen that creating an environment in which students exhibit their talents gives positive results.
11) When the data obtained are compared, it is seen that the students participating in the caricature workshop have the highest increase in self-confidence when compared to the radio and model airplane workshop.
12) Caricature workshop studies It is seen that students have a desire to participate in different workshops. Therefore, it can be said that students increase their motivation and develop a positive attitude towards school.
13) It has been observed that caricature workshop activities support knowledge, skills and affective development.
14) According to the data obtained from the caricature workshop; It can be said that 21st-century skills such as self-awareness, decision making, critical thinking,

creativity and innovation, problem-solving, communication and cooperation, productivity and accountability, leadership and responsibility, flexibility and adaptability, entrepreneurship and self-management are gained.

6. Suggestions

1) In the categories published by the Ministry of National Education, all schools can open design and skill workshops according to their means.
2) The Ministry of National Education should determine all of the design skill workshops that can be opened for the fields it has categorized, by conducting a study, and in this context, teachers should be given in-service training.
3) The Ministry of National Education can create the design skill workshop and modular program that it will determine to be opened in schools, by looking at the national occupational standards of the profession defined and determined by the Vocational Qualifications Authority, as a preparation for the knowledge, skills and skills corresponding to these standards.
4) Design and skill workshops should include environments that can provide equal opportunities in education in our country and continuity should be ensured in the workshops.
5) Compulsory course hours and types must be reduced in order for design and skill workshops in schools to function properly. Because it does not seem possible to implement workshops that will be carried out during extracurricular times, especially in transport-centered schools.
6) The Ministry of National Education should ensure that the design and skill workshops that will be opened in schools are integrated with values education.
7) While determining the design and skill workshop that the schools plan to open, they can determine the interests and wishes of the students with surveys.
8) It can be planned to open a design skill workshop with the opinions of teachers for students who are seen as talented.
9) The design and skill workshops that are planned to be opened should be environments that allow students to realize themselves by displaying their talents.
10) The criteria of the design skill workshop that is aimed to be opened can be determined by getting help from experts.
11) Necessary equipment, tools, etc. in the design skill workshop that is aimed to be opened. If it cannot be covered by the Ministry of National Education, it can be met by the school family unions, philanthropists or other incomes of the school (canteen, rent, parking lot, etc.).
12) The modular program of the design skill workshop that schools are planning to open should definitely be. If there is no ready-made modular program for the planned workshop activities, a modular program can be written again with the help of expert teachers or program development experts at universities.

13) In the selection of the teachers who will take part in the workshops, it should be checked whether they have received any training in that field. Certified teachers should be preferred.
14) Schools can benefit from Public Education Centers and Youth and Sports Directorate in their region for design and skill workshop planning.
15) It can cooperate with public education centers when schools do not have a teacher to implement the design skill workshop that they aim to open.
16) The products produced as a result of the design skill workshops opened can be exhibited in schools. Or, the products of all workshops opened in the district can be exhibited on a date determined by the district national education directorates at the end of the year and in public areas.
17) In the workshops, students can be followed through portfolio evaluation. In addition, workshops can be evaluated with self-evaluation forms as a result of the workshops.

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Conflict of Interest Statement
The authors declare no conflicts of interest.

About the Corresponding Author İsmail Gelen (Assoc. Prof. Dr./ PhD)
He started his career as a primary school teacher. He is an academic for 28 years. He is the head of Ondokuz Mayıs University, Faculty of Education, Department of Educational Sciences, Curriculum and Instruction, Türkiye. There are many national-international research articles, papers, scientific studies, publications, projects, books, numerous panels, seminars, conferences, radio-TV-talks, scientific meetings etc. He works in international organizations and accreditation organizations related to his field. He teaches courses such as Teaching Principles and Methods, Comparative Education, Scientific Research Methods, Critical and Analytical Thinking, Measurement and Evaluation, Curriculum Development, Applied Educational Statistics in SPSS, Thinking Skills and Development, New Approaches in Education, Program Evaluation. His major studies on curriculum development, curriculum evaluation, new approaches in education, thinking skills, 21st century skills, accreditation, comparative education. He worked as an academic in different countries in America, Europe, the Balkans, and Turkic Republics. He describes himself as a student who researches and teaches. Currently Associate Professor Dr. (PhD) and serves as the head of the Educational Curriculum and Training Department.
Orcid: https://orcid.org/0000-0001-6669-8702
ResearchGate: https://www.researchgate.net/profile/Ismail-Gelen
Academia: https://omu.academia.edu/IsmailGELEN
YOKSIS: https://akademik.yok.gov.tr/AkademikArama/view/viewAuthor.jsp

University Personal Web Page: https://personel.omu.edu.tr/tr/ismailgelen

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