

Teachers' views on the level of cultural heritage knowledge that can be improved through innovative technologies

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Abstract

The purpose of this research is to determine primary school students' perceptions of cultural heritage and to evaluate student and teacher views on the level of cultural heritage knowledge that can be improved through innovative technologies. The research was carried out with 20 primary school students and 10 primary school teachers who were educated in the city of Almaty, Kazakhstan in the 2020-2021 academic year. The research was designed in the case study pattern, which is one of the qualitative research methods. The data collection tools of the research were developed by the researcher. Semi-structured student interview form and semi-structured teacher interview form were used to collect data in the research. The analysis of the data was carried out using the content analysis method. The results of the research reveal that the students have a good grasp of some concepts related to the definition of cultural heritage and they partially know the tangible cultural heritage and intangible cultural heritage items. While the teachers did not find the cultural heritage education sufficient, they stated that an education through innovative technologies would increase the level of student knowledge and made suggestions regarding this. Research findings reveal the necessity of using innovative technologies in cultural heritage education and accordingly the need for new regulations in education programs.

Keywords; Cultural heritage, Innovative technologies, Cultural heritage education, Student knowledge level.

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1. Introduction

In the world where globalization and technological changes are fast, every economic, social, cultural and educational system has to keep up with the change (Karakus, 2017). In today's world, where the importance of information is rapidly increasing, technological developments have changed the activities that require the active participation of people in social life and directed them to the digital environment (Tezer et al., 2020). In the information society we live in, keeping up with the times and being a part of it requires carrying the traces of the past. It is known that the quality of individual values originating from their families, society and culture has an important role in the development of their identities (Asayesh, et al., 2020). In the information society we live in, keeping up with the times and being a part of it requires carrying the traces of the past. Cultural heritage, which is the link we establish between the past and the future, enables us to establish a link between us and previous lifestyles and carries our traces to future generations. Cultural heritage is the transformation of past experiences, objects, events, places and people into present experiences (Ashworth, 2011).

In recent years, studies in the field of protecting cultural heritage and transferring it to future generations have attracted great interest. Cultural heritage items, historical cities, living spaces, and culturally specific spiritual values reflect the unique character of societies (Ashworth and Tumbidge, 2000).

A social order in which cultural heritage cannot be transferred to new generations with current knowledge and technologies and where each generation shapes a new life is unthinkable. Information and communication technologies offer easier access to cultural heritage works and a universal perspective. In this direction, the necessity of education of cultural heritage through innovative technologies is considered important in terms of adaptation to the age of technology.

1.1. Theoretical and conceptual framework

In general, culture is defined by the lifestyles and all actions of a society. In addition, the concept of culture is explained together with the society due to its close relations (Kececi & Kececi, 2016).

Culture is defined as a rich combination of meanings, beliefs, practices, symbols, norms and values commonly used among people living in the same society (Schwartz, 2006).

UNESCO (United Nations Educational, Scientific and Cultural Organization) defines cultural heritage as a collection of artistic and symbolic signs that the past imposes on every culture.

Cultural heritage as an important part of the formation and change of cultural identities and the common product of people. It is an important treasure that presents the peculiarities of a place through human experiences. Therefore, emphasizing and protecting the importance of cultural heritage is an indispensable policy for cultures (Jokilehto, 2008).

UNESCO and international institutions have made great attempts in recent years to emphasize the importance of cultural heritage, and they have begun to emphasize the importance of giving a universal value to the concepts specific to cultures. With the 1972 Unesco World Heritage Convention, the concept gained an effective value as a reminder of what should be embraced all over the world (Harrison-Buck and Peshkova, 2013).

As it can be understood from the definition, each society has its own cultural characteristics that symbolizes the existence of societies and distinguish them from other societies. Culture's statues,

castles, money, etc. while its material elements are defined as tangible cultural heritage; oral traditions, practices related to nature and the universe, folk dances, handicrafts, ceremonies and rituals, etc. is defined as intangible cultural heritage (Kirshenblatt-Gimblett, 2004).

The definition of any item as cultural heritage is possible with the meaning that the society in which it lives is ascribed to that item. Cultural property should be owned and protected by the society and awareness should be raised against the tangible or intangible cultural element. However, when these processes are realized, a cultural element can be accepted as a heritage (Mourato and Mazzanti, 2002).

1.2. Related research

When the literature on the use of innovative technologies in cultural heritage education is scanned, it is seen that the studies are mostly focused on the protection of cultural heritage, but some studies focus on technology integration into cultural heritage education. In their study, Cozzani et al. (2017) mentioned the existence of innovative scenarios related to the education and protection of intangible cultural heritage of technological developments that have gained momentum in recent years.

Gogebakan (2011) worked with 7th grade students in his research on recognizing and protecting cultural assets. The researcher examined the content and reliability of the textbooks prepared for the creation of cultural awareness in 7th grade students and developed an attitude scale accordingly.

Curtis and Seymour (2004) evaluated current curriculum standards using Louisiana cultural resources as content. They planned workshops by developing lesson plans. With the Cultural Heritage Attitude Questionnaire, which was prepared to measure the cultural heritage attitudes of the students, the attitudes of the students before and after these workshop practices were measured. As a result of the study, it was observed that the students who participated in the workshops exhibited a higher positive attitude towards cultural resources compared to those who did not.

In his study, Gruber (2009) underlined that learning activities in these fields should be participatory, innovative and open to creativity in his work on the education of art and cultural heritage. In addition, the researcher investigated how innovative technologies should be integrated into art and cultural heritage education. The researcher emphasized the necessity of developing online learning opportunities and increasing the importance given to the use of innovative technologies in art and cultural heritage education.

Corbishley, Henson, and Stone (2004) also drew attention to the relationship between the protection of cultural heritage and education. In the study, it was emphasized that raising awareness of cultural heritage could be possible with the support of education programs.

Donmez and Yesilbursa (2014) conducted a study on 6th grade students' perceptions of tangible cultural heritage. In the study, some of the students were given education and the cultural heritage perceptions were compared with the non-educated group. As a result of the research, it was determined that the students who received education had a positive attitude towards cultural heritage compared to the students who did not.

Metin Goksu (2021) evaluated the views of social studies teachers on cultural heritage education in his study. The results of the study revealed that teachers benefited from various visual materials as well as traditional methods such as question-answer in cultural heritage education. The fact that students do not have sufficient knowledge about cultural heritage education is also seen as an important point emphasized by the teachers in the study.

1.3. Purpose of the research

The aim of the study is to determine the cultural heritage perceptions of primary school students and to evaluate the views of students and teachers on the level of cultural heritage knowledge that can be improved through innovative technologies. Accordingly, answers to the following questions are sought;

1. What are primary school students' perceptions of the definition of cultural heritage?
2. What are primary school students' perceptions of cultural heritage items?
3. What are primary school teachers' views on cultural heritage education?
4. What are the teachers' views on the effect of teaching cultural heritage through innovative technologies on the level of student knowledge?
5. What are the practical suggestions of teachers regarding the delivery of cultural heritage education through innovative technologies?

2. Method and Materials

In this section, the stages related to the conduct of the research were categorized, and the scheme of the research was created by detailing each category within itself.

2.1. Research method

This research was carried out by using qualitative research methods. The qualitative method is used to understand people's beliefs, experiences, attitudes, behaviors and interactions (Pathak, Jena, & Kalra, 2013). In the research, case study, one of the qualitative research methods, was used. Case studies are a research method that provides in-depth study and comparison when the boundaries between phenomenon and context are not clearly evident (Azungah, 2018). In this research, cultural heritage perceptions of primary school students and teachers' views were evaluated according to the case study, one of the qualitative research designs.

2.2. Participants

The participants of this research consisted of 20 primary school students and 10 primary school teachers who were educated in Almaty, Kazakhstan in the 2020-2021 academic year. 20 students and 10 teachers who agreed to participate in the research voluntarily were determined by using easily accessible case sampling, which is one of the purposeful sampling methods. This sample was chosen because it is fast and practical (Pathak, Jena, & Kalra, 2013). Due to the ethical necessity of keeping the identities of the research participants confidential, the statements of the researchers were coded in the study. In the study, while students were coded as S1, S2, S3..., teachers were coded as T1, T2, T3.... Demographic characteristics of the participants of the study are given below.

Table 1 contains information about the demographic characteristics of the teachers participating in the research.

Table 1: Demographic characteristics of primary school teachers

Class they teach	Gender		Sum
	Female	Male	
1st Class	2	1	3
2nd Class	-	1	1
3rd Class	2	2	4
4th Class	-	2	2
Sum	4	6	10

Of the primary school teachers participating in the research, 3 of them teach 1st grade, 1 of them gives 2nd grade, 4 of them 3rd grade and 2 of them 4th grade. In addition, 4 of the teachers participating in the research are female and 6 are male. A total of 10 primary school teachers participated in the research.

Table 2 contains information about the demographic characteristics of the students participating in the research.

Table 2: Demographic characteristics of students

Class	Gender		Sum
	Female	Male	
1st Class	3	2	5
2nd Class	1	1	2
3rd Class	5	3	8
4th Class	4	1	5
Sum	13	7	20

5 of the primary school students participating in the research are 1st grade, 2 of them are 2nd grade, 8 of them are 3rd grade and 5 of them are 4th grade students. In addition, 13 of the students participating in the research are girls and 7 are boys. A total of 20 primary school students participated in the study.

2.3. Data collection tools

The research data were collected using the student semi-structured interview form and the teacher structured interview form, which was developed after the literature review by the researcher.

During the preparation of semi-structured interview forms; After the literature review, it was planned to evaluate the degree of reflection of the content and form of the questions in the semi-structured interview forms. Opinions of 3 primary school teachers who were not among the research participants were taken. Semi-structured interview forms, which were finalized as a result of the evaluations, were presented to 3 primary school students and 2 primary school teachers under the name of pilot application in order to test the clarity of the questions. As a result of the pilot application, it was observed that the students and teachers did not detect any incomprehensible points regarding the questions. In this way, semi-structured interview forms are ready for application. In the semi-structured student interview form, there are questions about demographic characteristics and 2 open-ended questions. In the semi-structured teacher interview form, there are questions about

demographic characteristics and 3 open-ended questions. The forms are given in the appendices at the end of the research.

2.4. Data collection process

It was sent to primary school teachers by e-mail as part of the measures taken during the Covid-19 pandemic period. An explanatory text containing information about the content of the research was sent to the teachers, and those who agreed to participate in the research were asked to respond to the e-mail. A semi-structured interview form was sent to returning primary school teachers and they were asked to fill it in. Support was requested from the teachers participating in the research to their students and parents in terms of identifying the students who would participate in the research. After the interviews with the parents and students, the students who accepted to participate in the research voluntarily were determined, and the questions in the semi-structured interview form were asked through online face-to-face interview technique. The recorded interviews were directly transferred to the semi-structured student interview forms and evaluated. The completion of the process carried out with students and teachers took approximately 6 weeks.

2.5. Data collection analysis

The analysis of the research data was made by using content analysis. Content analysis is a scientific approach that allows for the objective and systematic review of oral, written and other materials. Content analysis is defined as the process of describing and categorizing the basic contents of existing written documents and the messages they contain (Sert, Kurtoglu, Akıncı, & Seferoglu; 2012).

The data obtained in the study were given by creating digitized frequency tables in order to determine the frequency of student and teacher responses. At this stage, two researchers independently evaluated the data and determined the points of agreement and disagreement.

The formula developed by Miles and Huberman (1994) was used to calculate the reliability of the obtained data; [Reliability = Consensus / (Consensus + Disagreement)]. As a result of the calculation, the reliability of the coding was found to be 93%. If the reliability calculation is over 70%, it is considered sufficient by the researchers for the research to be considered reliable. (Miles and Huberman, 1994). Therefore, since the coding reliability of the data of this study was quite high, the codings were accepted as reliable.

3. Results

In this section, information about the questions in the semi-structured interview form prepared by the researcher in accordance with the purpose and sub-objectives of the research and answered by the participants is given.

In Table 3, primary school students' perceptions of the definition of cultural heritage were evaluated.

Table 3: *Perceptions of students regarding the definition of cultural heritage*

Categories	Themes	F
	It is what we pass on to future generations.	5

Definition of cultural heritage	It's our past life	4
	It is the history of every country	3
	I do not know	3
	It is to transfer the culture to the next generations.	2
	They are things that do not change over time.	1
	What distinguishes us from other people	1
	Learning about culture	1

In Table 3, the perceptions of primary school teachers participating in the research regarding the definition of cultural heritage were evaluated. 5 of the students participating in the research defined cultural heritage as things that will be passed on to future generations. Regarding the definition of cultural heritage, 4 students gave their opinions on our past life, 3 students on the history of each country, 2 students on transferring the culture to generations. One student each defined cultural heritage, things that change over time, the features that distinguish us from other people, and culture as teachers. In addition, 3 of the students participating in the research could not express an opinion on the definition of cultural heritage.

The views of some students participating in the research on the definition of cultural heritage are given below;

S2; I think what we call cultural heritage is about how we used to live. In other words, things that happened in the past are our inheritance.

S11; Cultural heritage is to transfer the special things of our country to the next generations. It is to pass them on to the next generations.

S14; Everyone has a different feature. The most important features that distinguish us from other people are cultural heritage.

In Table 4, primary school students' perceptions of cultural heritage items were evaluated.

Table 4: *Students' perceptions of cultural heritage items*

Categories	Themes	F
Perceptions of tangible cultural heritage items	Cultural places are our cultural heritage.	12
	Museums are our cultural heritage	8
	I do not know	4
	Museums are our cultural heritage	3
	are our cultural heritage	3
	are our cultural heritage	2
	are our cultural heritage	2
	I do not know	
	Our clothes are our cultural heritage	
	Our flag is our cultural heritage	
Our society is our cultural heritage		
Our food is our cultural heritage		
Perceptions of intangible cultural heritage items	Our traditions are our cultural heritage	9
	are our cultural heritage	7
	are our cultural heritage	5
	are our cultural heritage	4
	are our cultural heritage	2
	Our tales are our cultural heritage	
	I do not know	
	Games are our cultural heritage	
	Our values transmitted from generation to generation are our cultural heritage.	
	Our values transmitted from generation to generation are our cultural heritage.	

In Table 4, the perceptions of the primary school students participating in the research regarding cultural heritage items were evaluated. The evaluation was made in two categories: students' perceptions of tangible cultural heritage items and their perceptions of intangible cultural heritage items. Cultural places, museums, clothes, flag, society and food were defined by students as tangible cultural heritage items. Traditions, tales, games and values transferred from generation to generation were defined as intangible cultural heritage items by the students. While 4 of the students stated that they did not have knowledge about intangible cultural heritage, 5 students did not express their opinions about intangible cultural heritage items.

The views of some students participating in the research on cultural heritage items are given below;

S5; Tangible cultural heritage items; We can have clothes. Some places can. We can have our flag. Intangible cultural heritage items; We can have traditions. It could be the games we play with our friends.

S13; Tangible cultural heritage items; Museums are our society. Intangible cultural heritage items; I don't know him exactly.

S16; Tangible cultural heritage items; Some places in our country, museums, our food, I think. Intangible cultural heritage items; values passed on by generations. It is our tradition. They are fun games.

In Table 5, the views of primary school teachers participating in the research on cultural heritage education were evaluated.

Table 5: Opinions of teachers on cultural heritage education

Categories	F
I don't find enough	6
I find it quite sufficient	3
I find enough	1

When the views of primary school teachers participating in the research on cultural heritage education are evaluated in Table 5; 6 of the teachers stated that they did not find the training provided sufficient, 3 found it partially sufficient and 1 found it sufficient. From this, it is concluded that the majority of the teachers participating in the research do not find cultural heritage education sufficient.

The opinions of some teachers participating in the research on cultural heritage education are given below;

T1; In the age we live in, I do not find the education provided sufficient in terms of raising awareness of cultural heritage among students and keeping tangible and intangible cultural heritage alive.

T6; Teaching of cultural heritage to primary school students continues within the scope of course curricula. However, at this point, it would not be correct to talk about a full qualification. Especially in the distance education process, it is possible to provide more effective learning with enriched activities and materials.

T9; I think that the education of cultural heritage elements integrated into the courses is sufficient.

In Table 6, the views of the teachers participating in the research on the effect of teaching cultural heritage through innovative technologies on the level of student knowledge are evaluated.

Table 6: *Opinions of teachers on the effect of teaching cultural heritage through innovative technologies on the level of student knowledge*

Categories	Themes	F
Positive effects on the acquisition of knowledge	Easy	8
	accessibility	
Positive effects on retention of knowledge	Variation	6
Positive effects on retention of knowledge	Grounding	5
	Sustainability	4
Positive effects on the use of information	Converts to behavior	2
	Conversion to attitude	1

In Table 6, the views of primary school teachers participating in the research on the teaching of cultural heritage through innovative technologies are grouped in 3 categories. These are; positive effects on the acquisition of knowledge, positive effects on the permanence of knowledge, and positive effects on the use of knowledge. Eight of the teachers participating in the research defined easy accessibility, 6 of them as diversity, and 14 of them as positive effects on the acquisition of knowledge in the teaching of cultural heritage through innovative technologies. 5 of the teachers defined grounding, 4 of them as sustainability, and 9 of them as positive effects on the permanence of knowledge in the acquisition of cultural heritage through innovative technologies. Finally, 2 of the teachers who participated in the research defined transforming into behavior, 1 in transforming into an attitude, and 3 in total defined positive effects on the use of knowledge in the teaching of cultural heritage through innovative technologies.

The opinions of some teachers participating in the research on the effect of teaching cultural heritage through innovative technologies on the level of student knowledge are given below;

T3; Providing such an education through innovative technologies brings the advantage of platforms that the student can easily access. At the same time, the student reinforces and grounds what they have learned in this way.

T5; Innovative technologies provide diversity in accessing information. It provides the opportunity for students to transform the knowledge they have learned into attitudes and behaviors.

T10; Innovative technologies offer the opportunity to diversify the course content in the teaching of cultural heritage. This diversity has a positive effect on the student's learning process. The permanence and sustainability of knowledge is also an important positive effect.

In Table 7, the application suggestions of the teachers participating in the research regarding the delivery of cultural heritage education through innovative technologies were evaluated.

Table 7: Recommendations of teachers regarding the delivery of cultural heritage education through innovative technologies

Categories	Themes	F
Cultural heritage education through innovative technologies	Virtual museum tours	7
	Online creative drama activities related to cultural elements	5
	Digital storytelling	3
	Using virtual reality glasses	2
	Animated movie events	1

In Table 7, the application suggestions of the teachers participating in the research regarding the delivery of cultural heritage education through innovative technologies are grouped under 5 different themes. 7 of the teachers suggested virtual museum visits, 5 of them offered online creative drama activities related to cultural elements, 3 of them offered digital storytelling, 2 of them using virtual reality glasses and 1 of them suggested animation film activities.

The application suggestions of some teachers participating in the research regarding the delivery of cultural heritage education through innovative technologies are given below;

T2; I think that virtual museum tours, digital storytelling and virtual glasses that can be designed for cultural heritage education can be interesting for students.

T4; Online creative drama activities can be organized so that students can recognize cultural elements and enable them to learn effectively.

T8; Digital stories based on cultural heritage can be interesting. Virtual museum visits can provide effective learning. Animated movies can also be used as a material that students can take interest in and receive effective education.

4. Discussions

When the research findings were evaluated, it was observed that the students had partial knowledge of some concepts that should be included in the concept of cultural heritage, but they could not make a full definition, and some students did not even have a grasp of the concepts related to the definition. Vecco (2010) analyzed the evolution of the concept of cultural heritage in Western European countries in his study. In the study, it is emphasized that the term "cultural heritage" has expanded, its usage area had become widespread, but it is not yet possible to talk about an effective use of a fully inclusive definition. Students mostly defined cultural heritage as what we pass on to future generations, our past lives, the history of countries, and the transfer of culture to generations. Bayır and Kose (2019), in their study in which they took the opinions of secondary school students on cultural heritage and its protection, stated that the students defined cultural heritage as historical artifacts, cultural richness and natural artifacts belonging to the past generations.

In the research, primary school students' perceptions of cultural heritage items were discussed in the categories of tangible cultural heritage and intangible cultural heritage. While cultural places, museums, clothes, flag, society and food are defined as tangible cultural heritage items, traditions, tales, games and values transferred from generation to generation are defined as intangible cultural heritage items by students. Tuncel and Altuntas (2020) revealed the perception of cultural heritage of primary school 4th grade students with a semiotic analysis. As a result of the research, they stated that

the cultural heritage perceptions of the students generally occur in the form of tangible cultural heritage items such as museums, home carpets, paintings, and they also have perceptions of intangible cultural heritage items such as holidays, weddings and traditions. Yesilbursa (2013) evaluated the attitudes of sixth grade students towards tangible cultural heritage and concluded that tangible cultural heritage should be protected, that tangible cultural heritage is a source of information about the past, that it reflects culture and that it should be transferred to future generations.

When the teachers' views on cultural heritage education were evaluated, it was concluded that the teachers did not find cultural heritage education sufficient in general. Avcı and Memisoglu (2016) emphasized that the cultural heritage subjects included in the curriculum are not sufficient in their studies. In addition, they concluded that arrangements and enrichments should be made in the programs in order to increase the importance given to cultural heritage education.

When the effect of teaching cultural heritage through innovative technologies on students' level of knowledge is evaluated, it is concluded that teachers find the use of innovative technologies in cultural heritage education positive in terms of acquiring knowledge, permanence of knowledge and use of knowledge. Byram and Risager (1999) emphasized the necessity of encouraging students to develop positive attitudes towards socio-cultural situations. In this way, it has been concluded that cultural awareness can be created in students.

Teachers' suggestions for cultural heritage education through innovative technologies are virtual museum visits, creative drama activities related to cultural elements, digital storytelling, using virtual reality glasses, and animated film activities. In their study, Yolcu and Basar (2016) stated that it is an effective method to benefit from virtual reality and, accordingly, virtual museums is an awareness tool in protecting cultural heritage. Bamford, (2012) in his study in Norway argued that low quality and inadequate programs harm children's creative development in developing their educational potential and weaken their commitment to cultural learning.

5. Conclusion

Preserving cultural heritage items and transferring them to future generations is of vital importance for the survival of societies. For this reason, providing a qualified cultural heritage education plays an active role in their cultural heritage knowledge acquisition at childhood. While the age of technology we live in necessitates the use of innovative technologies in education, the Covid-19 pandemic period we are in has made it almost mandatory. Accordingly, in this study, the views of students and teachers on the level of cultural heritage knowledge that can be improved through innovative technologies were evaluated by determining the perceptions of primary school students' cultural heritage.

As a result of the research, it was determined that the students knew certain concepts related to the definition of cultural heritage, but they did not fully understand the concept of cultural heritage. In addition, it was concluded that students' perceptions of tangible cultural heritage and intangible cultural heritage focused on certain items, but some students did not have knowledge about tangible and intangible cultural heritage items.

The results of the research reveal that teachers do not find cultural heritage education sufficient. Teachers stated that the use of innovative technologies in cultural heritage education will positively affect students in acquiring knowledge, permanence of knowledge and using knowledge. In addition, in order to achieve this, they made suggestions that organizing virtual museum trips, doing online creative drama activities related to cultural elements, digital storytelling, using virtual reality glasses and participating in animated film activities could be effective.

6. Recommendations

When the research findings were evaluated, it was deemed appropriate to give the following suggestions;

1. Curriculum, course contents and course materials should be rearranged with activities aimed at increasing the cultural heritage knowledge level of students.
2. Online activities that can be implemented through innovative technologies should be organized to increase students' knowledge level about the definition of cultural heritage and tangible cultural heritage and intangible cultural heritage items.
3. Considering the teachers' suggestions regarding the use of innovative technologies in cultural heritage education, existing technological opportunities should be integrated into education.

References

- Asayesh, M. H., Sadeghi, M. M., Fahimifar, M. J. & Golpasha, E. (2020). Identity and values in adolescents. *Global Journal of Guidance and Counselling in Schools: Current Perspectives*, 10(2), 95–101. <https://doi.org/10.18844/gjgc.v10i2.5314>
- Ashworth, G. (2011). Preservation, conservation and heritage: Approaches to the past in the present through the built environment. *Asian anthropology*, 10(1), 1-18. <https://doi.org/10.1080/1683478X.2011.10552601>
- Ashworth, G. J., & Tunbridge, J. E. (2000). *The tourist-historic city*. Routledge. <https://www.sciencedirect.com/book/9780080436753/the-tourist-historic-city>
- Avci, M., & Memisoglu, H. (2016). Opinions of Social Studies Teachers on Cultural Heritage Education. *Elementary Education Online (elektronik)*, 15(1), 104-124. <https://app.trdizin.gov.tr/publication/paper/detail/TWpBd01EazBOQT09>
- Azungah, T. (2018). Qualitative research: deductive and inductive approaches to data analysis. *Qualitative Research Journal*. <https://www.emerald.com/insight/content/doi/10.1108/QRJ-D-18-00035/full/pdf?title=qualitative-research-deductive-and-inductive-approaches-to-data-analysis>
- Bamford, A. (2012). Arts and cultural education in Norway. http://w289128-www.fnweb.no/wp-content/uploads/2017/08/Arts_and_Cultural_Education_in_Norway_2010-2011_Rapport-av-Anne-Bamford.pdf
- Bayır, O. G., & Kose, T. C. (2019). Opinions of secondary school students on cultural heritage and its conservation. *Kastamonu Journal of Education*, 27(4), 1827-1840. <https://dergipark.org.tr/tr/pub/kefdergi/issue/47010/585669>
- Byram, M., & Risager, K. (1999). *Language teachers, politics and cultures*. Multilingual Matters. <https://eric.ed.gov/?id=ED438734>
- Corbishley, M., Henson, D., & Stone, P. (2004). *Education and the historic environment*. Routledge. <https://doi.org/10.4324/9780203642337>
- Cozzani, G., Pozzi, F., Dagnino, F., Katos, A., & Katsouli, E. (2017). Innovative technologies for intangible cultural heritage education and preservation: the case of i-Treasures. *Personal & Ubiquitous Computing*, 21(2). <https://doi.org/10.1007/s00779-016-0991-z>
- Curtis, R., & Seymour, C. (2004). Louisiana Heritage Education Program and Heritage in the Classroom: Children's Attitudes toward Cultural Heritage. *Journal of Social Studies Research*, 28(2).

- Zhabykbayeva, D., Sanay, G., Bekish, A., Zhylybekova, G., & Kasymbekov, Z. (2021). Teachers' views on the level of cultural heritage knowledge that can be improved through innovative technologies. *World Journal on Educational Technology: Current Issues*, 13(4), 1073-1088. <https://doi.org/10.18844/wjet.v13i4.6311>
- <https://www.proquest.com/openview/a7ce413f513f378375abf81eb5b9b3ae/1?cbl=48205&pg-origsite=gscholar>
- Donmez, C., & Yesilbursa, C. C. (2014). The effect of cultural heritage education on students' attitudes toward tangible heritage. *Elementary Education Online*, 13(2), 425-442. <https://core.ac.uk/download/pdf/230034171.pdf>
- Gogebakan, Y. (2011). An achievement test and attitude scale study aimed at determining primary school students' awareness of recognizing and protecting cultural assets. *Adiyaman University Journal of Social Sciences Institute*, (6), 75-93. <https://dergipark.org.tr/en/pub/adyusbd/article/16513>
- Gruber, M. R. (2009). The role of e-learning in arts and cultural heritage education. *Kreativität und Innovationskompetenz im digitalen Netz—Creativity and Innovation Competencies in the Web*, 343-350. <https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.564.8628&rep=rep1&type=pdf>
- Harrison-Buck, E., & Peshkova, S. (2013). Ideology, Ritual Practice, and Cultural Heritage: An Introduction. *Spectrum*, 3(1), 1. <https://scholars.unh.edu/cgi/viewcontent.cgi?article=1010&context=spectrum>
- Jokilehto, J. (2008). *The World Heritage List. What is OUV? Defining the Outstanding Universal Value of Cultural World Heritage Properties* (Vol. 16). hendrik Bäßler verlag. <http://openarchive.icomos.org/id/eprint/435/>
- Karakus, C. (2017). Intangible cultural heritage acquirments affilitations in the social studies curriculum. *International Journal of Innovative Research in Education*, 4(1), 8-16. <https://doi.org/10.18844/ijire.v4i1.1250>
- Kececi, E. & Kececi, G. (2016). Simmel's concept of culture. *Global Journal of Sociology: Current Issues*. 6(1), 024–030. <https://doi.org/10.18844/gjs.v6i1.985>
- Kirshenblatt-Gimblett, B. (2004). Intangible heritage as metacultural production1. *Museum international*, 56(1-2), 52-65. <https://doi.org/10.1111/j.1350-0775.2004.00458.x>
- Metin Goksu, M. (2021). Social Studies Teachers' Views on Cultural Heritage Education, *International Journal of Eurasian Education and Culture*, 6(13), 1061-1093. <http://dx.doi.org/10.35826/ijoecc.352>
- Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook*. sage. https://books.google.com.tr/books?hl=tr&lr=&id=U4IU-wJ5QEC&oi=fnd&pg=PA10&ots=kFVBZKUQT&sig=CgaD6i2QzZf94SvMs9-SbC8MLU&redir_esc=y#v=onepage&q&f=false
- Mourato, Susana and Mazzanti, M. (2002) *Economic valuation of cultural heritage: evidence and prospects*. In: Torre, De la, Marta, (ed.) *Assessing the Values of Cultural Heritage*. Getty Conservation Institute. <http://eprints.lse.ac.uk/id/eprint/23284>
- Pathak, V., Jena, B., & Kalra, S. (2013). Qualitative research. *Perspectives in clinical research*, 4(3). <https://doi.org/10.4103/2229-3485.115389>
- Schwartz, S. (2006). A theory of cultural value orientations: Explication and applications. *Comparative sociology*, 5(2-3), 137-182. https://brill.com/view/journals/coso/5/2-3/article-p137_3.xml
- Sert, G., Kurtoglu, M., Akinci, A., & Seferoglu, S. S. (2012). An overview of research examining teachers' technology use: A content analysis study. *Academic Informatics*, 1(3), 1-8. <https://ab.org.tr/ab12/bildiri/132.pdf>
- Surucu, O., & Basar, M. E. (2016). Virtual reality as an awareness tool in preserving cultural heritage. *Artium*, 4(1). <http://artium.hku.edu.tr/en/download/article-file/283673>
- Tezer, M., Ulgener, P., Minalay, H., Ture, A., Tugutlu, U. & Harper, M. G. (2020). Examining the relationship between academic procrastination behaviours and problematic Internet usage of high school students during the COVID-19 pandemic period. *Global Journal of Guidance and Counseling in Schools: Current Perspectives* 10(3), 142-156 <https://doi.org/10.18844/gjgc.v10i3.5549>
- Vecco, M. (2010). A definition of cultural heritage: From the tangible to the intangible. *Journal of cultural heritage*, 11(3), 321-324. <https://doi.org/10.1016/j.culher.2010.01.006>

Zhabykbayeva, D., Sanay, G., Bekish, A. Zhylybekova, G., & Kasymbekov, Z. (2021). Teachers' views on the level of cultural heritage knowledge that can be improved through innovative technologies. *World Journal on Educational Technology: Current Issues*. 13(4), 1073 -1088. <https://doi.org/10.18844/wjet.v13i4.6311>

Yesilbursa, C. C. (2013). Sixth grade students' views on tangible cultural heritage. *Kastamonu University Kastamonu Education Journal*, 21(2), 405-420. <https://app.trdizin.gov.tr/makale/TVRRM09ERTNOdz09/altinci-sinif-ogrencilerinin-somut-kulturel-mirasa-yonelik-gorusleri>

Annex-1 Semi-structured teacher interview form

Semi-structured teacher interview form				
<i>The purpose of this research; The aim is to determine primary school students' perceptions of cultural heritage and to evaluate student and teacher views on the level of cultural heritage knowledge that can be improved through innovative technologies. Your answers will be used in the research by keeping your personal information confidential. Thanks in advance.</i>				
Demographic Information				
Gender:	Male: ()		Female ()	
Class You Teach:	1st Class ()	2nd Class ()	3rd Class ()	4th grade ()
Question 1. What are your views on the cultural heritage education given in primary school?				
Question 2. What are your views on the impact of teaching cultural heritage through innovative technologies on the level of student knowledge?				
Question 3. What are your suggestions for the provision of cultural heritage education through innovative technologies?				

Annex-2 Semi-structured student interview form

Semi-structured student interview form				
<i>The purpose of this research; The aim is to determine primary school students' perceptions of cultural heritage and to evaluate student and teacher views on the level of cultural heritage knowledge that can be improved through innovative technologies. Your answers will be used in the research by keeping your personal information confidential. Thanks in advance.</i>				
Demographic Information				
Gender:	Female: ()		Male ()	
Your Class of Education:	1st Class ()	2nd Class ()	3rd Class ()	4th grade ()
Question 1. What do you think cultural heritage means? How would you define cultural heritage?				
Question 2. What are the cultural heritage items? What do you think can be considered cultural heritage?				
What are the tangible cultural heritage items?			What are intangible cultural heritage items?	