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Increasing Primary School Students' Awareness of Cultural Heritage through Visual Interface Design

Görsel Arayüz Tasarımı Yoluyla İlkokul Öğrencilerinin Kültürel Miras Konusundaki Farkındalıklarının Artırılması

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ABSTRACT

Cultural heritage is the building block of a society, a set of tangible or intangible values that have come from the past to the present and should be transferred to future generations. Today, however, it has become important that these values, which face some negative impacts, are protected and sustained, in other words, that they are sustainable. The most basic and best way to ensure sustainability is to instill awareness of cultural heritage from an early age through education. Accordingly, in this study, first, the objectives and achievements of the 1st, 2nd and 3rd grades that may be related to cultural heritage in the Primary School Life Science Lesson and Visual Arts Lesson curricula were examined. A visual interface was designed with the idea that realizing these acquisitions, which have content related to cultural heritage, supported by visuals in a digital learning environment will contribute to the retention of information. In this visual interface design, there are games such as puzzles, artifact stories, reading aloud, finding a similar artifact, etc. to teach historical ruins and artifacts that fall within the scope of cultural heritage. With this design proposal prepared for the achievements of the courses, it is aimed to increase the interest of primary school students aged 9-10 in Turkey's cultural heritage, to raise their awareness, to educate them through gamification and to contribute to their mental development in this way. In this study, qualitative research method and case study design were used, and within this framework, the purposive sampling group consisted of classroom and visual arts teachers and a visual communication designer. The opinions of the teachers and field experts were consulted about the contributions that the visual interface design prepared by the researchers could make to the realization of the relevant outcomes and its functionality and aesthetic aspects.

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ÖZET

Kültürel miras, bir toplumun yapıtaşı, geçmişten günümüze gelen ve gelecek nesillere aktarılması gereken somut ya da somut olmayan değerler bütünüdür. Fakat günümüzde bazı olumsuzlarla karşı karşıya olan bu değerlerin korunması ve varlığını devam ettiriyor olması diğer bir anlatımla sürdürülebilir olması önemli hale gelmiştir. Sürdürülebilirliği sağlamanın en temel ve en iyi yolu ise küçük yaşlardan itibaren kültürel miras bilincini eğitim yolu ile aşılamaktır. Bu amaç doğrultusunda bu çalışmada, öncelikli olarak İlkokul Hayat Bilgisi ve Görsel Sanatlar Dersi öğretim programlarında kültürel miras ile ilgili olabilecek 1, 2 ve 3. sınıflar amaç ve kazanımlar incelenmiştir. Kültürel mirasla ilgili içeriği olan bu kazanımların dijital öğrenme ortamında görsellerle destekli olarak gerçekleştirilmesinin bilgilerin kalıcılığına katkı yapacağı düşüncesiyle bir görsel arayüz tasarlanmıştır. Bu görsel arayüz tasarımında kültürle miras kapsamına giren tarihi kalıntılar ve eserleri öğretmeye yönelik olarak yapboz, eser hikâyeleri, sesli okuma, benzerini bulma, görüntüyü tamamlama vb. oyunlar yer almaktadır. Derslerin kazanımlarına yönelik hazırlanan bu tasarım önerisi ile 9-10 yaş grubu ilkokul öğrencilerinin Türkiye kültürel mirasına ilgilerini artırmak, onları bilinçlendirmek, oyunlaştırma yoluyla eğitmek ve bu yolla zihinsel gelişimlerine katkıda bulunmak amaçlanmıştır. Bu çalışmada nitel araştırma yöntemi ve durum çalışması deseni kullanılmış, bu çerçevede amaçlı örneklem grubu sınıf ve görsel sanatlar öğretmenleri ile görsel iletişim tasarımcısından oluşturulmuştur. Araştırmacılar tarafından hazırlanan görsel arayüz tasarımının ilgili kazanımların gerçekleştirilmesine yapabileceği katkılar ile işlevselliği ve estetik yönü hakkında çalışma grubunu oluşturan öğretmenlerin ve alan uzmanlarının görüşlerine başvurulmuştur.

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Introduction

The word culture dates back to the Roman Empire. This word is derived from the Latin word "ederecultura", which in Roman language means sowing and reaping. In Turkish, it is synonymous with the word "ekin". UNESCO defines culture as "the distinctive set of spiritual, material, mental and emotional characteristics of a society or a social group, encompassing not only art and literature, but also lifestyles, ways of living together, value systems, traditions and beliefs" (UNESCO, 2001: 3).

The concept of cultural heritage is defined as "the artifacts and expressions of human communication and behavior that we have inherited from our ancestors, which we choose to preserve because they have individual and collective meaning" (Hereduc, 2005:12, as cited in Dönmez and Yeşilbursa, 2014: 426). In the early days, the concept of cultural heritage included the preservation of large-scale monuments of artistic and historical value. Today, it has a broader meaning, encompassing everything cultural that has a particular meaning for people. However, these cultural heritage assets that people care about, want to protect and pass on to future generations face various problems of wear, deterioration and disappearance. Some of these problems include unconscious excavations, natural disasters, smuggling of artifacts and air pollution. These problems faced by cultural heritage assets make it more important to ensure their protection and sustainability. In order to ensure this sustainability, education, which is the most important tool to help create cultural heritage awareness from an early age, comes into play. In the report prepared by Hamit Zübeyr Koşay in 1948 on the protection of cultural heritage in Turkey, it was emphasized that school curricula should be arranged in such a way that students would love cultural heritage and that art and culture lessons should be taught at all levels of education and training (Özcan, 2010: 32–33). In this context, in this study, 2018 Life Science and 2018 Visual Arts Curricula from primary education (1st, 2nd, 3rd and 4th grades) lessons on the survival and protection of cultural heritage are discussed.

Life Science lesson is a course that will form the basis for the knowledge that individuals will acquire in their lives (Acat, Anılan, Girmen and Anagün, 2005). In the curriculum of the course, it is aimed to

emphasize the psychological, biological, social and cultural aspects of the individual. The achievements and explanations of the 1st, 2nd, and 3rd grades under the title of "Recognizing national and cultural values", which is the subject of this research and is included in the 18th article in the Skills section of the Curriculum, were examined. As a result of the examinations, it was concluded that HB.1.5.2., HB.2.5.6. and HB.3.5.3. outcomes were within the scope of this research (MEB, 2018). In the same direction, the Visual Arts Curriculum was also examined, and it was seen that the objectives G.1.2.1., G.1.2.2.2., G.1.3.2., G.2.2.2.2. and G.3.3.3.1. include the subject of cultural heritage (MEB, 2018). In this study, the benefits of teaching cultural heritage, which is included in the curricula of Primary School Life Science lesson and Visual Arts lesson, through digital design and educational technology were emphasized. In this framework, a unit on "*Gaining cultural heritage awareness through digital learning*" was developed to be included in the curricula of these courses. It was evaluated that the results of this study would contribute to primary school students' better understanding of cultural heritage and the permanence of their knowledge.

1. Purpose of the Research

The aim of this research is to develop a visual interface design and digital games to attract primary school students' interest in cultural heritage, to inform them and to ensure the permanence of their knowledge. The study also aimed to obtain the opinions of designers and teachers in order to understand and evaluate the contribution of a unit that includes visual interface design and gamification to cultural heritage teaching. In this framework, the following questions were sought to be answered in the research:

- 1. How was the visual interface design created to attract primary school students' interest in cultural heritage, to inform them and to ensure the permanence of their knowledge?
- 2. How was the process of preparing the course unit for gaining cultural heritage awareness through digital learning realized?
- 3. What are the opinions of teachers and design experts about the course unit involving the use of visual interface online for cultural heritage teaching?

In this study, it was aimed to reach findings that could answer these questions. Within the scope of the research, it was evaluated that this new unit created for visual arts and life science lessons would contribute to the development of primary school students' skills to know, assimilate and protect cultural heritage.

Method

In this study, "Explanatory Case Study" design, one of the qualitative research methods, was used. This design is descriptive and uses one or two cases to provide information about a situation. This helps to interpret other data like this, especially if there is some reason to believe that the reader has little knowledge of a program (Yıldırım and Şimşek). Within the framework of this design, in addition to examining the relevant documents on the subject, findings were obtained by interviewing teachers and design experts about the visual interface design and unit plan developed for use in online teaching.

1. The Research Process

The researchers created this study based on a project carried out within the scope of the "Interdisciplinary Design Studio I" course in the Master of Design program at TOBB University of Economics and Technology, Institute of Social Sciences. In this project-based course, students are asked to utilize a New Europan Bauhaus model approach in their project production assignment. The European Union-funded NEB is described as a creative and interdisciplinary initiative that connects the European green order to our living spaces and experiences (European Union). The Culture Hunt project, which is the subject of this research, has been a study produced in relation to the principle of sustainability of cultural heritage in the NEB Model.

The Culture Hunt project includes the process of designing a visual interface to serve the purpose of this research and the process of preparing and implementing the unit plan and lesson (daily) plan in which this interface will be integrated. In the first stage of this research, information based on the literature review on the importance of cultural heritage in Turkey and in the world was included. In the second stage, an application

that educates primary school students while entertaining them through a visual interface design that is thought to help create cultural heritage awareness was developed. It was determined that there was a deficiency in this direction in Turkey and a draft design was realized in the context of the Culture Hunt project. During this study, various games and visual interface designs for primary school students and examples of tangible and intangible cultural heritage in Turkey were analyzed.

In the third stage of the study, a draft unit plan and lesson (daily) plan were prepared for the Cultural Heritage unit of the 4th grade Visual Arts lesson and the Culture Hunt visual interface design was integrated into the draft unit plan and lesson plan. The visual interface design of the Culture Hunt project was presented to a design expert, a classroom teacher and a visual arts teacher in terms of aesthetics and functionality and their opinions were consulted. On the other hand, the opinions of a classroom teacher and a visual arts teacher were sought in terms of the applicability and necessity of the prepared unit plan and lesson plan.

2. Working Group

In the study, maximum diversity sampling, one of the purposeful sampling methods used in qualitative research, was used. Maximum variation sampling is to create a relatively small sample that maximizes the diversity of individuals who may be parties to the problem under study (Yıldırım and Şimşek, 2021). The reason for choosing maximum variation sampling is to try to find out whether there are any common or shared phenomena among diverse situations and to reveal different dimensions of the problem according to this diversity. In maximum variation sampling, three experts constituted the research group. Regarding the design aspect of the Culture Hunt project, the opinions of the field expert, who is both a designer and a design educator, the classroom teacher and the visual arts teacher were consulted; regarding the necessity and applicability of the unit plan and lesson plan, only the opinions of the classroom teacher and the visual arts teacher were consulted.

3. Data Collection Tools

The data in this study were obtained from qualitative data collection tools through document analysis and semi-structured interview forms. The first part of the study includes the analysis of oral, written and visual data containing information about the topics planned to be researched. In order to collect data for the study, publications on culture, cultural heritage, what should be done to effectively teach cultural heritage to primary school students and what tools are used for this purpose were analyzed. In addition, articles published on topics such as what are the important tangible and intangible cultural heritages for Turkey and why it is important to raise awareness on this issue at an early age were researched. Academia, Elsevier, Dergipark and ProQuest databases were used to search for articles.

Two semi-structured interview forms, which were created for the theoretical dimension of the research and the expert opinions to be obtained regarding the Culture Hunt visual interface design, unit plan and lesson plan prepared within the scope of the project, were applied to classroom and visual arts teachers and a design expert. The first semi-structured interview form consists of two parts. In the first part, questions were asked to learn teachers' personal and professional information. Before starting the second part, teachers were sent the unit and lesson plan files and shown the Culture Hunt visual interface project draft. In the second part, questions were asked about the unit and lesson plans and the project outline that had been submitted and reviewed before the interview. The questions in the second part of the semi-structured interview form are as follows:

Regarding the Draft Unit Plan and Lesson Plans:

- 1- What do you think about the 4th grade Visual Arts Lesson Cultural Heritage Unit increases students' awareness, knowledge and curiosity about cultural heritage?
- 2- What do you think that the current curriculum and annual plan should be modified and integrated with technology?
- 3- How do you make use of technology while teaching the Cultural Heritage unit? What technological tools do you use?
- 4- What are your thoughts on the implementation of the draft unit plan and the daily plans?

5- How do you think the application of the "Culture Hunt" game through visual interface design will be useful to students?

Regarding "Culture Hunt" Visual Interface Design Project Draft:

- 6- What are your thoughts on the feasibility of the project?
- 7- How do you think the visual interface outline shown can help increase cultural heritage awareness of the 9-10-year-old primary school students?
- 8- What are your thoughts on how draft interface design should attract children's attention?
- 9- As an expert, what are your thoughts on the feasibility of this project?
- 10- Do you have anything to add about the unit and lesson plan proposal?

In the second semi-structured interview form, a design expert was consulted about the color, typography and imagery of the draft visual interface design. The questions in the semi-structured interview form are as follows:

- 1- What is the effect of color selection in terms of visual perception and reflecting cultural heritage?
- 2- What is the appropriateness of visual images and typography in visual interface design?
- 3- Do you think how the colors, visuals and typography used will affect 4th grade students?
- 4- How would you evaluate the effectiveness of vector designs used in visual interface design in conveying Turkey's cultural heritage to children?
- 5- Do you have anything to add about visual interface design?

4. Visual Interface Design Development Process

Before starting the design process, it was examined how the subject of cultural heritage, which is included in the curricula of Primary School Life Science and Visual Arts courses, is taught in the course. As a result of these examinations, it was decided that it would be beneficial to teach cultural heritage education through digital design and educational technology. As a result, a digital visual interface design was developed. First of all, the name of the interface and the logo design process were included.



Figure 1. Culture Hunt logo design

The figures in the logo design are composed of geometric patterns applied in Kufic calligraphy and the basic forms of rug art. *Kufic calligraphy draws attention with its angular letters formed by emphasizing*

horizontal and vertical lines in Islamic architecture and handicrafts. With this feature, it is more compatible with geometric drawings than other writing forms (Bakırer, 1982: 1).

There are 6 traditional motifs that make up the Culture Hunt logo. Respectively, these motifs express meanings such as "Unity, East and West, Harmony, Meeting, Ascension, World". With the vibrant color tones used in the design, it is aimed to arouse the perception of vitality, curiosity and excitement in students aged 9-10. In the second stage of the design process, artifacts and people important for Turkish culture were analyzed. As a result, 11 artifacts such as the ruins of Mount Nemrut and Göbeklitepe, the Gypsy Girl, and 3 people important to the history of culture such as Piri Reis and Nasrettin Hodja were selected. Vector designs of the 11 selected works were studied and included in different parts of the interface. In addition, games such as jigsaw puzzles, matching, information hunt, and reading aloud, which will be included in the interface, were examined and reconstructed in line with the works and people mentioned above.

In the visual interface design, soft colors such as turquoise and cream tones were preferred in contrast to the vibrant colors used in the logo. The reason for using soft, serene color tones is to avoid distracting children's perceptions while playing or reading aloud. Thus, it was thought that they would focus more on and absorb the information and the game.



Figure 2. Culture Hunt visual interface design

5. Unit and Lesson Plan Preparation Process

The unit plan and daily plan are tools that enable a theme, topic or project to be taught in detail and in an orderly manner, with the duration of the lesson determined. The unit plan developed for this research is characterized by the aim of providing students with the opportunity to understand, explore and appreciate the value and importance of cultural heritage. It also aims to make learning more effective and enjoyable by encouraging students' active participation. While developing the lesson plan, the 2018 Visual Arts and Life Science Curricula were examined first. The Cultural Heritage unit of the 4th grade Visual Arts Course was determined as the focal point. In this direction, the Annual Plan for the 4th Grade Visual Arts Course for the 2022-2023 Academic Year was examined. Based on the analyzed annual plan, 3 daily lesson plans were prepared, which were integrated with technology and the missing points were eliminated. The lesson plan was developed with the aim of strengthening students' cultural identity, raising their awareness of preserving and protecting cultural heritage, and developing their ability to understand and respect different cultures. At the same time, it is also aimed to develop students' basic skills such as research, communication, and creativity.

Findings and Interpretations

Opinions and Criticisms on Design

In the first stage of the research, the opinions and criticisms obtained through a semi-structured interview form with a design expert specially selected in the study group to obtain data for the purpose of the design creation part of the research are given below.

The first question asked to the designer expert was "How is the effect of color selection in terms of visual perception and reflecting cultural heritage?" (D); "I found the color successful. You have to think like this, you had two things to do here. The first was to reflect history and the second was to appeal to children, both had to be done. I found it successful in this regard. I mean, I think the colors are appropriate for a subject related to history. Warm earth tones, brown tones are very beautiful and at the same time inviting for children. Even for me too. It is beautiful and inviting. I found it very attractive." In line with the opinions of the designer expert, it was concluded that the colors in the visual interface design were used correctly and appropriately in the context of reflecting cultural heritage and attracting children's attention.

The second question asked to the designer expert was "How is the appropriateness of visual images and typography in visual interface design?" (D); *"I think it's nice. It also has a read aloud feature, which is nice. Font choices are also successful. It shouldn't be too harsh or too serious. It should be neither like Comic Sans nor Times New Roman. I think you chose such a nice font in between."* In line with the opinions expressed by the designer, no negativity was encountered about the appropriateness of the visual images and typography in the visual interface design.

To the third question "Do you think that the colors, images and typography used appeal to 4th grade students?", the designer expert asked (D); "*I'm thinking, yes.*" In line with the opinions stated by the designer, it was concluded that the colors, images and typographies used in the visual interface design appeal to 4th grade primary school students.

In response to the fourth question "Do you think that the vector designs used in visual interface design effectively reflect Turkey's cultural heritage to children?", the designer expert asked (D); "*I am thinking about it, yes. For example, the illustrations in the main menu and the iconization in the find your partner game are very successful, you can see it.*" In line with the opinions stated by the designer, it was concluded that the vector designs used in the visual interface design are at a level and clarity that 4th grade primary school students can perceive.

The fifth and last question asked to the designer expert was "Do you have anything to add about visual interface design?" (D); "The flow of the visual interface is nice. Having a game inside is a nice feature. I can suggest something like this. Everything should have an and, everything should be connected to an end. After using this visual interface, the student comes to the last section and does what is required and at the end of this, you should give feedback to the student. So maybe you can give something visual. Either a message of congratulations or something different. After all, since it is a game, the child should be able to focus on the final goal. In other words, you should set a goal for the child, I think they should get in the mood, like I should do this, I should do that, I should get that. For example, it is the same in games, you play Pac-Man, you eat everything, it is a goal, for example, I think you should have a goal too." In line with the opinions and criticisms

of the designer, it was concluded that there should be a reward system at the end of the chapters in order for students to complete the games with enthusiasm and willingness. With this reward system, it will be aimed to give students a purpose and to attract their interest in this way.

In line with the suggestion of the design expert interviewed, necessary additions were made to the visual interface and shared with the participant teachers.

Opinions and Criticisms on Unit Plan and Lesson (Daily) Plan

In the second stage of the research, the opinions and criticisms obtained through a semi-structured interview form to obtain data on the unit plan, lesson plan and design creation parts of the research with a specially selected visual arts and a classroom teacher in the study group are given below.

After personal and professional questions were asked to the visual arts teacher and classroom teacher, the first question was "Do you think that the Cultural Heritage unit of the 4th grade Visual Arts course increases students' awareness, knowledge and curiosity about cultural heritage?" (T1); "In Grade 4, the lesson time given by National Education is one hour. Because the hours of other lessons are increasing. When we use such interfaces and compare them with activities, we can see the effect of how many children use such interfaces in one class hour. But we need to evaluate that time very well in the implementation stages. If we cannot evaluate that time, there is a possibility that the lesson will be inefficient." In line with the opinions expressed by the visual arts teacher, it was concluded that the students were interested in the Cultural Heritage unit and that learning with the interface and activities used in the course had an impact on the students. However, by the 4th grade, the lesson time is reduced to one hour per week, which negatively affects the teaching of the lesson on the one hand and the focus of the students in the lesson on the other.

(T2): "Absolutely. Giving cultural values to children in visual arts lessons is the most important issue that should be done. This study is good. It is definitely an important subject that should be there." In line with the views expressed by the classroom teacher, it was concluded that cultural heritage education is necessary.

The second question posed to the visual arts and classroom teachers was "Do you think that the current curriculum and annual plan should be modified and integrated with technology?" (T1); "I definitely think so. In fact, it should start from the lower levels, not from 4. Integration with technology is a must now. For example, here I am thinking of increasing the use of technology in the second grades. Even in the first grades, I tried to integrate it a little bit and they liked it very much. In fact, this can be done not only in the 4th grade but also in almost all primary schools." In line with the views expressed by the visual arts teacher, the integration of technology into the curriculum is given in the lesson from the first grade to the fourth grade. The active use of technological devices in the lesson has a positive effect on the teaching of the lesson and attracts the students' attention and makes them focus on the lesson. Based on this, it can be said that integrating technology into the curriculum has positive effects on students.

(T2): "We would definitely like to. But not every school has the means. For example, especially in schools without smart boards or in small schools. We are very lucky in Ankara, we have the chance to visit museums, but I think they should all have a common denominator according to school facilities. This is easier in big cities, but it should be arranged with a plan to reach small cities." In line with the opinions and criticisms expressed by the classroom teacher, it was concluded that it was necessary to integrate the current curriculum and annual plan with technology. On the other hand, it was also emphasized that this integration should be done in such a way that schools with and without access to technology find a common ground.

The third question asked to the visual arts and classroom teacher was "Do you make use of technology while teaching the Cultural Heritage unit? If so, which technological tools do you use?" (T1); "If most of the children have tablets, I make use of them. Otherwise, we have a smart board. I use the smart board a lot. We have computers. I can change places and go to the computer classroom and use the computers." In line with the views expressed by the visual arts teacher, it can be stated that technological tools, especially smart boards, are used effectively in the lesson.

(T2): "We benefit, but we have limited opportunities here, we don't have a smart board, so we use projection. Or because we are in Ankara, we can easily visit museums." In line with the opinions expressed by the classroom teacher, it was stated that technological tools were used in the lesson but had limited opportunities. In addition, the advantage of being in a big city like Ankara was also mentioned.

In response to the fourth question "Do you think that the unit plan and lesson (daily) plans shown as drafts are applicable?" asked to the visual arts and classroom teachers, (T1); "*It can be implemented very easily. I just think it would be better if the transition phase to a lesson was included in this plan before the lesson teaching part.*" In line with the opinions and criticisms stated by the visual arts teacher, it can be thought that the unit plan and lesson plan prepared within the scope of the research are applicable, but it would be more explanatory and understandable by including the transition to the lesson in the lesson plan.

(T2): "I like it very much; it can be implemented. Our programs are similar anyway. But in visual arts, classroom teachers need to be supported a little more. For example, in private schools, branch teachers are involved. Of course, our competence for children is not as good as theirs, but they have more advantages. I think there should be a special seminar or course for visual arts teachers in public schools, especially for willing teachers. Compulsion may cause problems. Every semester, visual, music and physical education teachers need to be supported. I don't think public schools are sufficient in this regard. It is up to the teacher to improve our opportunities, and it would be better if the state supports them in this regard." In line with the opinions and criticisms expressed by the classroom teacher, it was concluded that the unit and lesson plan shown as a draft was applicable. In addition, it was evaluated that classroom teachers in public schools, and that training such as seminars or courses should be provided to ensure competence.

In response to the fifth question, "Do you think that the progression of daily lesson plans in line with the visual interface design of "Culture Hunt" will contribute positively to students?", the fifth question was asked to the visual arts and classroom teacher, (T1); "Yes, it will definitely happen. Because, as they always say, I think it would be very successful because it is one of the ways that visually increases perceptual retention more. It would be especially better at this age." In line with the opinions expressed by the visual arts teacher, it was concluded that the "Culture Hunt" visual interface design would have positive contributions especially for the 9-10 age group.

(T2): "I think it will contribute positively to the students. For example, I tell the students about Göbeklitepe, but today's children are the alpha generation, that is, they grow up directly with computers. Of course, it will be even better if we add technology. But as I said, not every school has the means, so it will still be up to the teachers. If the state supports this, it will be much better." In line with the opinions and criticisms expressed by the classroom teacher, it was seen that the "Culture Hunt" visual interface design would have positive contributions. In addition, it was understood that the technology to be applied should be supported by the state, otherwise it cannot be applied in every school under equal conditions and the same effect cannot be achieved.

The sixth question asked to the visual arts and classroom teacher was "Did you find the project feasible?". (T1); The answer was "yes". In line with the views expressed by the visual arts teacher, it was evaluated that both lesson plans and visual interface design can be implemented and applied in teaching.

(T2): "The game will get their attention more. I mean, just telling them verbally doesn't mean anything. For example, we take children to museums in visual arts classes. For example, there we had them make clay tablets describing civilizations, or we invited them to school where they made them. But it will be accessible to every student on the visual interface design. As I said, not every teacher can reach these opportunities. But I like it here, it will be much easier to reach children." In line with the opinions expressed by the classroom teacher, it was concluded that both lesson plans and visual interface design could be implemented and that every student could be reached in this way. The seventh question asked to the visual arts and classroom teachers was "Do you think that the visual interface draft shown can help to increase the awareness and consciousness of cultural heritage of primary school students in the 9-10 age group?" (T1); "*Absolutely. It can even be made more difficult.*" In line with the opinions and criticisms expressed by the visual arts teacher, it was concluded that the "Culture Hunt" visual interface design will contribute to increasing the awareness and consciousness of cultural heritage of primary school students aged 9-10. On the other hand, it can be considered that the level of game designs for fourth grade students, for whom the games can be made more difficult, remains at a simple level.

(T2): "Yes, I think so." In line with the opinions expressed by the classroom teacher, it was understood that the visual interface design of "Culture Hunt" would contribute to increasing the awareness and consciousness of cultural heritage of primary school students aged 9-10.

In response to the eighth question "Do you think the interface design will attract children's attention?" asked to the visual arts and classroom teacher. (T1); "I can clearly say that explaining with technology and games attracts children's attention in every way. I mean, when you explain a subject verbally and then gamify it and integrate it with technology, children love it and adore it, and it also increases its memorability." In line with the opinions expressed by the visual arts teacher, it was concluded that the use of verbal explanations followed by visual interface applications in the lesson attracted the student's attention and thus increased the retention of information.

(T2): *"I'm definitely thinking about it. I like it a lot."* With this statement, the classroom teacher also stated that the "Culture Hunt" visual interface design would attract children's attention.

In response to the ninth question, "As an expert, do you think it is possible to realize such a project?" asked to the visual arts and classroom teacher. (T1); "There is already an application called 'Word Wall'. There is also this kind of content here. For example, circles are explained with puzzles, and they are effective. This application is also effective." In line with the opinions expressed by the visual arts teacher, it was concluded that there are programs that teach by entertaining with games and that they work on students, and that the visual interface design of "Culture Hunt" will make positive contributions in the same way.

(T2): "We actually used technology in distance education. We found activities with Web 2.0 tools and did them with children. So, it was very useful for us in distance education. But when we switched to regular education, that transition period was difficult. When we left the computer and switched to regular education, we took a break from the use of technology. We didn't use the computer as much as in distance education to adapt the children. I think it is a very good practice. There are good activities to prepare for the lesson before the lesson and good activities to do during the lesson." The classroom teacher mentioned that activities were carried out using tools such as "Web 2.0" during the distance education period. It was stated that when formal education was switched to formal education, technology was moved away from the course, but the "Culture Hunt" visual interface design, which was shown as a draft, included good activities to be done in the course.

The tenth and final question asked to the visual arts and classroom teacher was "Do you have anything to add about the unit and lesson plan proposal?" (T1); "*I think it would be more descriptive if you include the part of drawing attention to the plan first, motivating, and then transitioning to a lesson.*" In line with this criticism stated by the visual arts teacher, it was understood that it would be useful to prepare a more explanatory and understandable lesson plan draft by including the transition to the lesson in the lesson plan. (T2): "*I think it's beautiful, it's really detailed.*" According to this opinion expressed by the classroom teacher, it was evaluated that the unit and lesson plan were thought and made in detail.

Discussion, Conclusion and Recommendations

The aim of this research is to evaluate the necessity, applicability and design perception of the visual interface design proposal of Culture Hunt, which was developed to attract the interest of 9–10-year-old primary school students towards cultural heritage, to inform them and to ensure the permanence of the information they

have acquired, based on expert opinions. The research also sought the opinions of designers and teachers in order to understand and evaluate the contributions of the unit plan and lesson plan developed for this purpose, which includes visual interface design and gamification, to cultural heritage teaching. Within the scope of the research conducted, no visual interface design was found in Turkey that entertains and at the same time teaches the cultural heritage unit to primary school students aged 9-10 through visual interface design. A visual interface design was developed based on the deficiencies identified by the researchers. In addition, the unit plan and lesson plan in the existing visual arts curriculum were examined by the researchers and the missing points were eliminated and a draft plan was prepared by integrating the "Culture Hunt" visual interface design. With this study, it is thought that students' cultural identities will be strengthened, they will gain awareness of protecting and sustaining cultural heritage, and their ability to understand and respect different cultures will be improved.

The benefits of using visual interface designs in early childhood education lessons are well known (Şen, 2019: 31-34). According to Calvert, the most effective technology is that which entertains students so that they learn without even realizing it. With interactive technology, students can have a more permanent learning experience. Interactivity, when used correctly, enables students to focus effectively. Interactive tools can increase students' productivity by improving their reading, writing, location, orientation, mathematics, and logical thinking skills (Calvert, 2007). In this study, it was set out with such a purpose and it was evaluated that the visual interface prepared would contribute to the teaching of cultural heritage within the scope of visual arts lesson. As a matter of fact, in this study, it was understood from the interviews that students could gain the habit of teaching lessons by using digital education technology to use the visual interface.

Edutainment is an experimental teaching method. In this method, teachers aim to engage students in lessons through entertainment, so that learning becomes a more enjoyable experience. In a lesson where the edutainment method is applied, activities such as games, toys, media and other experiences such as gamification can be included. This method motivates students throughout the learning process to improve the combination of fun and learning, the educational experience, and overall retention (Feiyue, 2022). The edutainment method aims to design teaching and learning activities in a way that is fun. In this way, students become more active and creative in lessons. In the same way, teachers feel more valuable and effective with this method. In this way, they have a better interaction with their students.

An application of the edutainment method, which is becoming increasingly important in education, can be realized with the "Culture Hunt" game in the draft visual interface design. It is thought that this learningby-entertainment-based study will strengthen students' cultural identities, raise their awareness of protecting and sustaining cultural heritage, and improve their ability to understand and respect different cultures.

It was necessary to understand the possible contribution of the prepared draft interface and the culture hunt game to art education in conveying the cultural heritage unit. In this framework, a visual arts teacher and a classroom teacher were selected to form the sampling group in the study, as they were thought to reflect the sample in the most accurate way and to provide accurate information on cultural heritage education. In addition, an expert designer was consulted to determine how the visual interface was perceived in the design context, the accuracy of color perception, and the functionality of the size and placement of typography and visual images. In the study, semi-structured interview forms were applied to the experts. According to the findings obtained from the interviews, the "Culture Hunt" visual interface design draft was found interesting by expert designers and teachers. From the interview data with the designer expert, it was concluded that the colors, typographies and visual images were done correctly for cultural heritage and 9–10-year-old primary school students. In addition, a suggestion was made that there could be a reward system at the end of the game sections, which would attract more student interest and give them a purpose. In line with the interviews with the visual arts teacher and the classroom teacher, the "Culture Hunt" visual interface design was found to be a remarkable, functional and realizable project. However, it was emphasized that if the project is to be implemented, there should be a common denominator for schools with and without access to technology. On the other hand, in line with the interviews, it was confirmed that the unit plan and lesson plan drafts were detailed and applicable. However, it was concluded that it would be more explanatory and understandable by including the transition to the lesson in the lesson plan. As a result of the interviews, it was concluded that making some additional improvements to the draft visual interface design, unit plan and lesson plan in line with the suggestions made would further enrich and strengthen the application.

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