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The Effect of Blended Learning on Educational Performance of Secondary School Students in Art in Gonabad City

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Abstract
The present study aims at investigating the efficacy of blended learning in distance education on educational performance of 7th grade secondary school students in the lesson of art in Gonabad city. The research method is quasi experimental with post-test, pre-test and control group design. The statistical population consists of all female students in the 7th grad secondary school in Gonabad city who were studying in the academic year of 2016-2017. The research sample was 58 participants selected through available sampling and assigned into two experimental and control groups who were homogeneous based on educational achievement. The experimental group was given instruction based on blended learning system and the control group was under traditional teaching style. The pre-test of educational performance of the lesson of art was performed on both experimental and control groups and after 12 instruction sessions in blended learning to experimental group, the post-test of educational performance in art was administered among both groups. The results were analyzed using Covariance Analysis in SPSS software. The findings indicated that the educational performance of experimental group in Iranian painting, designing applicable objects based on fruit and flower patterns, new ideas and new pattern of objects, and educational performance in regular design textures have been enhanced and there was a significant difference between educational performance of experimental and control groups in art lessons with a higher achievement of experimental group.

Keywords
Distance Education, Blended Learning, Educational Performance, Art Lesson, Secondary School Students.

Introduction

In recent years, the system of distance education has undergone major changes with the advent of new technologies such as multimedia and mass media. Technology has continuously changed teaching and learning and consequently, educational systems, including in-person and distance education systems, tend to apply blended learning approach. This situation is observable in many educational systems in developed, and even in developing countries over the world [1].

The extent of the curriculum development of distance education system based on blended learning is outlining the completely virtual courses and the blended learning-based curriculum will have a significant impact on the future of education [2]. Schools and universities will continue to work in presence and the entrance of online technology will

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not make the actual presence of learners in schools and universities less likely, but the use of online technologies in face-to-face teaching and distance education systems in higher education institutions will be highlighted [3]. Face-to-face learning environment is prevalent in educational system in all countries and educational experts believe that human interactions are considered as essential part of learning. In addition, e-learning environment provides more opportunity and time for thinking and provides equal opportunities for sharing their thoughts [4]. In recent years, new changes and innovations in the curricula of higher education in the world have provided enormous educational opportunities for learners so that they can benefit from face-to-face classrooms along with online instructions and applying instruments such as blogging, virtual classes, discussion boards, and talking forums. This form of learning is known as blended learning [5].

Blended learning means combining face-to-face classes and online learning so that learners are assured to acquire basic and essential principles in their curriculum. Blended learning is also a helpful and beneficial approach to combine web-based and online curriculum and face-to-face programs. In other words, blended learning is an interactive and mutual use of online and presence learning environments [6] which provides a range of learning activities and opportunities such as web-based and online learning activities in classrooms for learners and prepare the opportunity for learning activities and experiences at anytime and anywhere. These learning experiences can be achieved formally and informally through interaction with online material and resources, discussion sessions in the classroom, and printed materials [7].

Blended learning is one of the newest educational methods that have been developed in line with technology and science development with the aim of creating interactive environment between face-to-face and e-learning instructions [8]. Blended learning not only increases educational achievement, but also is more cost-effective and flexible approach than traditional methods [9]. Blended learning is a new pattern in the learning system that by integrating information and communication technologies of distance education system on one hand and the characteristics of face-to-face educational system on the other hand, leads to the efficiency and effectiveness of education [10]. Another variable that has been investigated in this study is the student's educational performance in the arts. Students' educational performance in art lessons is defined as practical skills, handicraft, and artistic products and works that students perform on the basis of the curriculum of culture and art. Art is one of the serious cultural categories of every society that is described as the highest form of human spiritual activity by scientists. It is obvious that when this spiritual activity of human being is going to grow, it will have massive application in enriching the social culture. On the other hand, art plays a worthy and helpful role in the growth, prosperity, and flourishing of human being, recognition and understanding of the world around us in finding the people’s deep feelings, familiarity with the customs, cultures, and beliefs of different nations in the world, creating an atmosphere of mutual understanding and solidarity among nations, and exchanging information and the like [11]. Blended learning approach, due to the use of positive features of e-learning and face to face instructions and the use of multimedia technology in the distance education system, has the potential role to be used in the field of teaching and learning art lessons and the content of the art course can be presented in a variety of formats to students. In addition, familiarizing students with their artistic experiences, thoughts and visual principles, and aesthetics and its impact on the teaching process is essential [12]. In the National Curriculum of the Islamic Republic of Iran, about the importance and necessity of learning the lesson of culture and art, it is emphasized that culture and art are the most efficient features in education. The most important function of this field is the achievement of cultural literacy and identity, creating

enthusiasm and joy, understanding and expressing feelings and meanings, expressing identity in the language of art, developing senses, aesthetic taste, imagination power, creativity, appreciation of beauty and cultural heritage, and ultimately, achieving cultural insights [13]. The domain area includes comprehending artistic ideas, procedures, skills, artistic instruments, and cultural heritages in two practical (producing the works on the basis of alphabet and combining rules) and theoretical (comprehending the values of works based on aesthetic, history, culture, and art, and analyzing artistic works) arenas, decoding and encoding phenomena in the artistic form including two procedures of discovering the meaning (understanding and getting the work value) and creating the meaning (producing the work value). The overall orientation of this area is in organizing content and education (artistic education), with an emphasis on achieving cultural insights [13]. Organizing activities in the framework of artistic education approaches causes the perception of the beauties of nature, the living environment, artistic cultural works, empowering senses, imagination and thinking, the ability to understand the hidden and obvious meanings, and enriching the sensitive and emotional perception. Cultural and artistic education is conducted in the initial educational years indirectly, and gradually, in line with the curriculum and art courses, it benefits from direct instruction [13]. Regarding the major changes in textbooks, such as the Handbook of Art, which has been transformed to the book of Culture and Art of the First Secondary School, the need for new teaching methods is felt for this lesson.

There have been different studies about blended learning including Akgunduz and Akinoglu's study indicating that blended learning has affected the rise of student self-regulation skills [14]. The results of Pinto liorente and his colleague's study show that blended learning has been effective in improving understanding grammar by second-language learners [15]. Rowey and Jordan's research showed that in blended learning, the feeling of presence in learners is much stronger than virtual and traditional education separately [16]. In their research, Cosgrove and his colleagues found that the student's power of recalling content in blended learning was higher than traditional-course students [24]. Kwak and et al, in their study on blended learning, found that short-term blended learning courses did not have impact on the learner's educational performance, while the implementation of long-term blended learning courses over the entire semester has a positive effect on students' educational performance [17]. The results of Olympiou and Zacharia's (2012) study showed that the conceptual understanding of students in blended learning courses is significantly higher than traditional and present courses. Bridges and colleagues in their research found that the implementation of blended learning in comparison with in-person courses, leads to the improvement of students' learning [19]. By reviewing the related literature, the researcher found that there are few studies done about the efficacy of blended learning on educational improvement of students in arts. Thus doing related study on this issue is necessary and in this regard, the present study has been done with the aim of investigating the effectiveness of blended learning on the students' educational achievement in art courses.

Art, creativity, and technology have an unbreakable link with each other and by reviewing the history of the art in Iran, it becomes clear that Iranian art has had a rich history in terms of creative artists and architects and one of the missions of the Book of Culture and Art is the return of the creative spirit of adolescents to this country. Regarding the importance of the art course for fostering the aesthetic spirit in students and the emergence of new technologies in education and learning, the researcher attempts to answer to the following research question:

"Does blended learning affect the educational performance in the art lessons of high school female students?

Research Method

The research method of the present study is quasi-experimental with a pretest, post-test, and control group design. The statistical population includes all 7th grade high school female students (1780 students) studying in high schools of Gonabad city during the educational year of 2016-2017. Of the girls' secondary schools in Gonabad, two schools were selected randomly and from these two schools, a first grade secondary school was selected as the control group and the other was selected as the experimental group. The two groups were homogeneous in terms of educational achievement. The criteria for participating in the study was being a female student in the 7th grade secondary school, and the criteria for leaving the study was the absence of more than two sessions in the classroom and reluctance to collaborate in the study. The blended learning approach was conducted on the experimental group for two months, and the control group received the usual training and eventually, the experimental and control groups were compared with each other. Collected data in the implementation of blended learning have been assessed through analyzing educational performance of students in the Culture and Art course. Students' educational performance included practical skills, handicraft, and artistic products and works that students performed on the basis of the curriculum of art and culture syllabus. Students in both control and experimental groups have done their assignments and experienced teachers in art gave scores to their works in both groups in pre and post-tests. In the procedure, after choosing three experienced teachers in the field of culture and art, the researcher asked them to rate the performance of students in the art lessons. Teachers then individually scored students' artwork before and after the blended learning instruction to the experimental and control groups and the mean score of three teachers for each student was considered as the main score in the pre-test and post-test.

In blended learning in distance education system, the lessons of Art and Culture were instructed to experimental group in integrative method in a computer lab by DATA, using content products of art related to the lesson of Art and Culture. The specialized blog was designed for the Culture and Art course and the contents of each lesson in the blog were placed in a multimedia file. Initially, students in experimental group were trained to use specialized instructional materials and the researcher encouraged them to use the blog to learn lessons in the arts. In this specialized blogs, materials were presented in the form of PowerPoint, tutorial blog, educational videos, illustrations, and specialized text. One of the other actions was putting a sample of lesson exercises related to the given lessons in the blog. After completing the blended learning training course, students' educational performance in the experimental and control group was scored by experienced teachers. Descriptive statistics such as mean and standard deviation were used to analyze the descriptive information and the covariance analysis was used to test the hypotheses. The reason for using the covariance test was that in this statistical test, post-test means are compared after modifying the pre-test means in the experimental and control groups.

Research Findings

Of the 58 participants, including the experimental group and the control group who were studying in two selected schools, all 58 subjects responded to the questionnaires.

Table 1 shows the descriptive statistic of educational performance of control and

experimental groups.

Table 1. Mean and Standard Deviation of educational performance of students in control and experimental groups

Groups	**Experimental**		**Control**	
Educational performance variable	**Mean**	**SD**	**Mean**	**SD**
Identify and understand the history of Iranian and Islamic art	18.24	1.13	16.85	1.13
Designing and production of a pattern based on flower pattern	17.91	1.15	16.07	1.17
Designing and production of applicable objects based on fruit pattern	18.12	1.17	16.83	1.16
Designing and production of regular works and the use of nature in creating order in painting	18.30	1.19	17.21	1.18
Designing and production of works from natural phenomena	18.19	1.21	16.82	1.45
Designing and production of flower pattern in the design and manufacturing of wallpaper	18.35	1.65	17.17	1.49
Designing and production of textures	18.21	1.71	16.79	1.56
Designing and production of Iranian painting works	18.29	1.19	16.81	1.81

As the table shows, the mean score of educational performance of students in the experimental group is greater than the control group.

Testing the first hypothesis:

"The use of blended learning affects educational performance of students in identifying and understanding the history of Iranian and Islamic painting and manufacturing new objects and novel ideas". To test the hypothesis, the covariance analysis technique was used.

Table 2 indicates the results of covariance analysis of the impact of implementing blended learning approach on the educational performance of students in identifying and

understanding the history of Iranian and Islamic painting and manufacturing new objects and creating novel ideas.

Table 2. Dependent variable: Post-test

Sources of changes	Sum of squares	Degrees of freedom	Mean of squares	F	Sig.
Companion variable (pre-test scores)	63.407	1	63.407	117.437	.000
Group effect	30.897	1	16.682	30.897	.000
Error	29.696	55	.54		
Total corrected	126.48	57			

The results in the Table suggests that the effect of companion variable is meaningful at P=.000 and F=117.437. That is there is significant difference between pre-test and post-test scores. Also the result shows that the group effect is meaningful at (P=.000 and F=30.897), that is there is significant difference between experimental and control groups in terms of implementing blended learning approach influencing on student's educational performance in identifying and understanding the history of Iranian and Islamic painting and manufacturing new objects and novel ideas. The modified mean of experimental group is 18.30 that is significantly different with control group (16.93). It suggest that implementing blended learning approach affects and increases educational performance of experimental group in identifying and understanding the history of Iranian and Islamic painting and manufacturing new objects and creating novel ideas.

Testing the second hypothesis:
"The use of blended learning affects students' educational performance in the design and production of applicable designs based on flower patterns".

To test the hypothesis, the covariance analysis technique was used. Table 3 indicates the results of covariance analysis of the impact of using blended learning on the educational performance of students in designing and producing applicable designs based on flower patterns.

Table 3. Dependent variable: Post-Test

Sources of changes	Sum of squares	Degrees of freedom	Mean of squares	F	Sig.
Companion variable (pre-test scores)	42.893	1	42.893	66.674	.000
Group effect	21.097	1	21.097	32.793	.000
Error	35.383	55	.643		
Total corrected	11.655	57			

As the results in Table 3 suggests, the effect of companion variable is meaningful at P=.000 and F=166.674. That is the difference between pre-test and post-test scores is significant. Also the result shows that the group effect is meaningful at (P=.000 and F=14.464), that is there is significant difference between experimental and control groups in terms of the impact of implementing blended learning on student's educational performance in the design and

production of applicable designs based on flower patterns. The modified mean of experimental group is 17.99 that is higher than control group (16.76). It suggest that implementing blended learning affects and increases educational performance of experimental group in the design and production of applicable designs based on flower patterns.

Testing the third hypothesis:
"The use of blended learning affects students' educational performance in the design and production of applicable objects based on fruit patterns".

To test the hypothesis, the covariance analysis was used. The result of the analysis is reported in Table 4.

Table 4. Dependent Variable: Post-Test

Sources of changes	Sum of squares	Degrees of freedom	Mean of squares	F	Sig.
Companion variable (pre-test scores)	35.065	1	35.065	41.395	.000
Group effect	21.174	1	21.174	24.996	.000
Error	46.59	55	.847		
Total corrected	112.06	57			

As it is shown in the Table, the effect of companion variable is meaningful at P=.000 and F=41.395. It means that there is significant difference between pre-test and post-test scores. Also it suggests that the group effect is meaningful at (P=.000 and F=14.464), which means there is significant difference between experimental and control groups in terms of the effect of implementing blended learning on student's educational performance in the design and production of applicable objects based on fruit patterns. Modified mean of experimental group is 18.02 that is significantly higher than control group (16.08). It means that implementing blended learning affects and increases educational performance of experimental group in the design and production of applicable objects based on fruit patterns.

Testing the forth hypothesis:
"The use of blended learning affects students' educational performance in the design and production of regular pattern employing nature in creating order in painting."

Table 5 indicates the results of Covariance Analysis of the effect of blended learning approach impact on educational performance of students in the design and production of regular design works by using nature in the creation of order in painting.

Table 5. Dependent Variable: Post Test

Sources of changes	Sum of squares	Degrees of freedom	Mean of squares	F	Sig.
Companion variable (pre-test scores)	22.223	1	22.223	20.009	.000
Group effect	16.065	1	16.065	14.464	.000
Error	61.07	55	61.07		
Total corrected	106.91	57	106/91		

As the Table shows, the effect of companion variable is meaningful at P=.000 and F=20.009. That is the difference between pre- test and post-test scores is significant. The group effect is meaningful also (P=.000, and F=14.464), i.e. there is difference between experimental and control groups in terms of implementing blended learning-based teaching. Student's educational performance by using blended learning approach in the design and production of regular patterns by inspiring the nature in creating order in painting increased significantly. Modified mean of experimental group (18.34) is higher than control group (17.27) that means implementing blended learning approach increases educational performance of experimental group in the design and production of regular patterns by employing nature in creating order in painting.

Testing the fifth hypothesis:
"The use of blended learning affects students' educational performance in the design and production of patterns from natural phenomena."

Table 6 shows the results of Covariance Analysis of the impact of blended learning on the student's educational performance in designing and producing patterns from natural phenomena.

Table 6. Dependent Variable: Post Test

Sources of changes	Sum of squares	Degrees of freedom	Mean of squares	F	Sig.
Companion variable (Pre-test scores)	28.993	1	28.993	31.911	.000
Group effect	21.188	1	21.188	23.319	.000
Error	49.97	55	.909		
Total corrected	113.87	57			

The results in Table 6 indicates that the effect of companion variable is meaningful at (P=.000 and F=31.911). It means that there is significant difference between pre-test and post-test scores. It also suggests that the group effect is significant as well (P=.000 and F=23.319). It means that two experimental and control groups are different significantly and implementing blended learning affects educational performance of students in the design and production of patterns from natural phenomena. The modified mean of experimental group is 18.01 that is significantly higher than control group (16.77), which means the implementation of blended learning significantly affects the educational performance of students in designing and producing patterns from natural phenomena.

Testing the sixth hypothesis:
"The use of blended learning affects students' educational performance in the design and production of flower patterns in designing and manufacturing wallpaper and the like".

Table 7 demonstrates the results of Covariance Analysis of the impact of blended learning on the educational performance of students in the design and production of flower patterns in

designing wallpaper and the like.

Table 7. Dependent Variable: Post Test

Sources of changes	Sum of squares	Degrees of freedom	Mean of squares	F	Sig.
Companion variable (Pre-test scores)	47.215	1	47.215	73.202	.000
Group effect	29.119	1	20.119	31.193	.000
Error	35.47	55	.64		
Total corrected	122.41	57			

As the results in the Table reports, the effect of companion variable is meaningful at P=.000 and F=73.202, which means there is meaningful difference between pre- and post-test scores. Moreover, the group effect is significant at (P=.000 and F= 31.193) that means there is significant difference between control and experimental groups in terms of the effect of blended learning on educational performance of experimental group in designing and producing flower patterns in designing and manufacturing wallpapers and the like. The modified mean of experimental group is 18.29, that is significantly higher than control group (17.08), which means the implementation of blended learning significantly affects the educational performance of students in designing and producing flower patterns in designing and manufacturing wallpapers and similar objects.

Testing the seventh hypothesis:

"The use of blended learning affects students' educational performance in the design and production of texture works".

Table 8 indicates the results of covariance analysis of the effect of blended learning approach on the educational performance of students in designing and producing texture works.

Table 8. Dependent variable: Post-Test

Sources of changes	Sum of squares	Degrees of freedom	Mean of squares	F	Sig.
Companion variable (Pre-test scores)	36.077	1	36.077	68.358	.000
Group effect	23.054	1	23.054	43.683	.000
Error	29.027	55	.528		
Total corrected	106.501	57			

As the results in Table 8 indicates, the effect of companion variable is meaningful at P=.000 and F=68.358, which means there is meaningful difference between pre- and post-test scores. In addition, the group effect is significant at (P=.000 and F= 43.683) that means there is significant difference between control and experimental groups in terms of the effect of blended learning

on educational performance of experimental group in designing and producing texture works. The modified mean of experimental group is 18.15, that is significantly higher than control group (16.85), which means the implementation of blended learning significantly affects and increases the educational performance of students in designing and producing texture works.

Testing the eighth hypothesis:
"The use of blended learning affects students' educational performance in the design and production of Iranian painting works."

Table 9 shows the results of covariance analysis of the effect of blended learning approach on the educational performance of students in designing and producing Iranian painting works.

Table 9. Dependent Variable: Post-Test

Sources of changes	Sum of squares	Degrees of freedom	Mean of squares	F	Sig.
Companion variable (Pre-test scores)	52.083	1	52.859	113.859	.000
Group effect	27.972	1	27.972	61.150	.000
Error	25.159	55	.457		
Total corrected	141.39	57			

As the results in Table 9 shows the effect of companion variable is meaningful at (P=.000 and F=113.859), which means there is significant difference between pre-test and post-test scores. It also indicates that the group effect is meaningful at (P=.000 and F= 61.150) that means there is significant difference between control and experimental groups in terms of the impact of blended learning on educational performance of experimental group in designing and producing Iranian painting works. The modified mean of experimental group is 18.37, which is higher than control group (16.85). It suggests that the implementation of blended learning significantly affects and increases the educational performance of students in designing and producing Iranian painting works.

Discussion and Conclusion

The findings of the first hypothesis of this study showed that the use of blended learning is effective in the students' educational performance in identifying and understanding the history of Iranian and Islamic art and creating new objects and new ideas. The finding if this study is in line with the findings of Akgunduz and Akinoglu that found students who were given courses in blended learning environment were able to recall lesson contents more and better than students who participated in face to face and traditional instructions [14]. The results of the second hypothesis showed that the use blended learning was effective in students' educational performance in designing and producing applicable design based on flower. The results of this study are in consistent with Kwak and his colleagues [17]. Kwak's research showed that the implementation of blended learning courses during the semester and for the whole textbook has a positive impact on the educational performance of the students. The results of the third hypothesis showed that using blended learning approach affects students' educational performance in the design and production of

applied objects based on fruit patterns. The results of this study are consistent with the research of Abdollahzadeh [20]. The results of the fourth hypothesis indicated that using blended learning affects students' educational performance in the design and production of regular design works and the use of nature in creating harmony in painting. The findings of the present study are in line with the research done by Olympiou and Zacharia [18]. In their study, they found that students who participated in blended learning courses understand the light range and color better than students who have attended solely in face-to-face course or e-learning environment. The results of the fifth hypothesis showed that using blended learning approach affects students' educational performance in designing and production of works from natural phenomena. The findings of this study are consistent with the research by Bridges and his colleagues that found the implementation of a blended learning course would improve students' learning [19]. The results of the sixth hypothesis indicated that using blended learning affects students' educational performance in the design and production of works based on flower pattern and producing wallpaper and similar objects. The findings of the present study are consistent with the research by Olympiou and colleagues [18]. The results of the seventh hypothesis showed that the use of blended learning approach affects students' educational performance in designing and producing texture works. The findings of the present study are in line with the Olympiou and colleagues' findings in that the use of blended learning affects students' educational performance in designing and producing Iranian painting works [18].

The results of this research are similar to Abdollahzadeh's study that was done on the teaching arts and crafts skills in an electronic way using information and communication technology [20]. They found that information and communication technology has a significant capacity to train skills related to the field of handicrafts and its application in this field significantly increases the ability to expand these skills.

In discussing the research findings, one can claim that implementing blended learning has a significant role in educational performance of students and its application in schools could cause enthusiasm and improvement in students' educational performance and it is better to use this approach in schools effectively. Victoryjoy and Doosan (2007) argue that blended learning courses enable learners to obtain different, deeper, and more knowledge compared to solely e-learning and in-person learning environments. The learners of the blended learning courses who benefited from the experience of group and in-person interactions in learning showed better performance in group interactions and collective experiences compared to those who were deprived from face-to-face interaction with their teachers and classmates. Zolfaghari and his colleagues (2010) in the study done on the effectiveness of blended learning in teaching nursing and midwifery students in Medical University of Tehran found that blended learning, as a new mechanism that integrates different learning and teaching techniques, caused more satisfaction in students and teachers that could enhance learning quality by creating flexibility in learning and taking advantage of both presence and e-learning environments. So including blended learning in schools is felt necessary.

Regarding the importance of providing education through multimedia in distant education system, the need for education in accordance with the prerequisites of each student, establishing individual and group interactions through blended learning, and using other forms of symbolic representation requires that blended learning be taken into consideration so that learning processes can be more attractive and with high quality (Bersin, 2004). Blended learning is a link between traditional face-to-face learning and e-learning environments in a way that instruction takes place both in the classroom and

electronically [22], where online e-learning is considered as a natural development of traditional classroom. Blended learning instruction is a flexible approach to the design of the course that supports the combination of different times and places for learning and provides facilities and privileges of a distance education system without losing real face-to-face interactions.

Blended learning environment allows learners to deal with extensive engagement with teachers, classmates, other students, and educational materials and resources [23]. These interactions do not take place solely through online devices and facilities such as virtual classes, online discussions, e-mail, e-books, and electronic articles, but for live and extensive human interactions, group discussions in the classrooms, dual, or multiple talks with teachers and students at schools, and other forms of face-to-face interactions are employed extensively in this system. Blended learning environment has made it possible for students to experience and learn continuously and effectively at any time and any place they'd like. Based on the characteristics of blended learning approach, it is necessary to have diversity in educational methods because teaching students through various online and in-person methods and devices according to individual differences and different learning styles is at the heart of attention. Therefore, the characteristics and privileges of the blended learning can lead to the deep and sustainable students' learning.

Due to advancement of science and technology, using new educational facilities and upgrading teaching methods, and making synergy with progress and technology, there is a need for new educational methods in the distance education system and the use of blended learning contexts in schools. The lesson of art is a lesson with innumerable and uncountable creative ideas and works so that if we try to include every aspect of art in textbooks, it will be over a thousand pages, which still does not give the right to the subject. But with the new educational devices including educational media, on-line instructions, telegrams, the Internet, blogs, and computer software, we can include these art lessons into the classrooms that in turn, it may result in creating motivation and enthusiasm of students to these art fields. In the current era of technology, students are more likely to receive this kind of teaching and training because by means of a movie, they can travel to the depths of the history of Iranian-Islamic culture and art and visit the famous museums of the world at one moment. Blended learning is considered as one of the best methods of teaching that has the value and worth of learning in any place and any time that has been implemented and has made students progress. Therefore, it is suggested that the use of blended learning approach be at the top of the planning and implementation of the curriculum of Culture and Art lesson in the Ministry of Education so that students can have multiple and effective interactions with their teachers, educational resources and contents, and their classmates to provide effective and continuous learning opportunities.

One of the limitations of the current research is that this study is limited to 7th grade secondary school students, and there is likely to obtain different results in other contexts. Based on the findings of the present study, it is suggested that the practitioners of the high school education system attempt to include blended learning approach in teaching art lessons by holding courses and workshops to justify and encourage teachers and other stakeholders to use this approach in their programs and prepare specialized books for art lessons based on blended learning system for high school students so that they can use blended learning approach in their learning regularly.

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