Recognition and Analysis of Massive Open Online Courses (MOOCs) Aesthetics for the Sustainable Education

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شناسایی و تحلیل زیباشناسی دوره‌های برخط انبوه آزاد(موک) در جهت آموزش پایدار

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Abstract:

The present study was conducted to recognize and analyze the Massive Open Online Course (MOOC) aesthetics for sustainable education. For this purpose, two methods of the exploratory search (qualitative) and the questionnaire (quantitative) were used for data collection. The research sample in the qualitative section included the electronic resources related to the topic and in the quantitative section, 36 experts in the field of the distance education planning from the virtual learning environments and universities were selected voluntarily. The content analysis method was used to analyze the qualitative data and weighted average and Friedman's test was used to analyze the survey data for content analysis. The qualitative results of the study showed that the aesthetics of the MOOC should have a visual attraction in terms of the learner dimension, and they should be attractive and enjoyable in terms of the content dimension and regardless of any constraint, they must be linked to the natural environment regarding the dimension of the teaching organization and educational environment, indicating the equal effect of each of the four dimensions (the learner, content, teaching organization, and educational environment) of distance education. Quantitative results obtained from the viewpoints of the experts in the field of the distance education on the aesthetics of the MOOC showed that they can be assessed in the dimensions of the content, educational environment, and the teaching organization that will have a significant and special effect on the qualitative results on the MOOC aesthetics.

Keywords: Recognition and Analysis, MOOC Aesthetics, Sustainable Education.

چکیده:

مطالعه آمیخته حاضر با هدف شناسایی و تحلیل زیباشناسـی مـوک (دوره‌هـای آموزش باز و برخط انبوه) در جهت توسعه پایدار انجام گرفت. به ایـن منظـور از دو روش جستجوی اکتشافی (کیفی) و روش پرسشنامه‌ای (کمی) استفاده شـد. نمونه پژوهش در بخش کیفی منابع الکترونیکی مرتبط با موضوع و در بخـش کمی‌۳۶ نفر از خبرگان برنامـه‌ریزی آموزش از دور در محـیط‌هـای آمـوزش مجازی و دانشگاه‌های مجازی بودند که بـه‌صـورت داوطلبانـه انتخـاب شـدند. جهت تحلیل داده‌های کیفی از روش تحلیل محتوا و جهت تحلیل داده‌های نظرسنجی از شاخص نسبت روایی محتـوا، میـانگین وزنـی و آزمـون فریـدمن استفاده شد. نتایج کیفی مطالعه نشان داد زیباشناسی مـوک در بعد یادگیرنـده باید جاذبه بصری داشته باشد و در بعد محتوا باید جذاب و لذت‌بخش باشد و در بعد سازمان یاد دهنده و محیط آموزش باید فارغ از هر محدودیتی تداعی‌کننده محیط طبیعی و ملموس باشد و حـاکی از یکسان بـودن تـأثیر هریـک ابعـاد چهارگانه (یادگیرنده، محتوا، سازمان یاددهنده و محیط آموزش) آمـوزش از دور است. نتایج کمی از دیدگاه متخصصان حوزه یادگیری از دور زیباشناسی مـوک، ابعاد محتوا، محیط و سازمان یاددهنده تأثیر قابل‌ملاحظه و ویـژه‌ای نسـبت بـه نتایج کیفی ویژگی‌های زیباشناسی موک دارند و قابل‌بررسی می‌باشند.

واژه‌های کلیدی: شناسایی و تحلیل، زیباشناسی موک، آموزش پایدار.

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Introduction

Computers have created new capacities for the humans allowing us to make the new choices, But often there is no policy to guide the existing situations related to the computer technology or existing policies are not enough(Chaney,2006).

Technology connects the whole world with the interconnected and intertwined spider webs and it is no longer the responsibility of the private individuals to deal with this complexity, but everyone is responsible. Asynchronous communication is usually done using e-mail, newsgroups, and electronic discussion rooms and simultaneous communication is possible through video conferencing, virtual classes, and chat rooms (Sarmadi et al., 2012).

Massive Open Online Course (MOOC), as one of the new forms of distance learning provides the users with the new opportunities, such as learning in an informal environment, sharing the knowledge, being free, flexible, increasing the digital skills and information literacy, and so on. In the MOOC, learners are required to accept personal responsibilities, because contacting the teachers is very limited (Bates, 2018).

MOOC

The word MOOC stands for the massive open online course and in Persian, open and online education courses are defined as the process of becoming meaningful. In 2012, a new model of open and online education was introduced by the best universities in the world, which revolutionized online education and sustainable development. (Lee, 2008; Rezaaee & Paakseresht, 2018).

In Iran, Payam noor University as well as the GoTo Institute, Webyad, Maktabkhooneh, etc are also active platforms in this field (Jadidi Mohammad Abadi et al., 2019).

MOOC is a special type of free and mass online education course that has the following features (Gordon&Sork, 2014).

➢   Holding a curriculum at some point in time including the science and skills

➢   Individual learning in a single format

➢   Based on the principles of academic education

➢   In the traditional courses, a course is defined for a limited number of students and teachers but the expansion of MOOC can support an unlimited number of the participants.

➢   Everyone around the world who has access to the Internet can register at the MOOCs.

➢   Participants in this course do not need to register at the school, institution, or university and do not need to pay any cost.

➢   Thousands of users can participate simultaneously (regardless of gender, age, culture, financial, temporal, and spatial constraints).

➢   MOOC training leads to freedom in various educational dimensions, such as software, registration, curriculum, educational evaluation, interactions and communication, participation, knowledge sharing, and learning environment.

Esposito (2012) considered the MOOCs as a popular distance learning environment providing the open content based on sustainable development so that, anyone anywhere in the world can register for free and participate in the course(Esposito,2012).

Downes (2014) identified four key design principles for the MOOCs:

• Learner Autonomy: In terms of choosing the desired contents or skills by the learners, learning is personal, and therefore, there is no formal curriculum.

• Variety: It is referred to the used tools, the range of participants, their levels of knowledge, and diverse content.

• Interaction: In terms of cooperative learning, it is referred to the communication between the participants leading to the emergence of the knowledge.

• Being Open: It is concerned with the access, content, activities, and evaluation.

MOOCs have four key features derived from the words involved in this acronym (period, mass, open, and online), which will be briefly discussed here (Jadidi Mohammad Abadi et al., 2019).

Massive: During the four years since 2011, Coursera claimed more than 12 million registrations within the largest period with 240,000 participants. Many (hundreds or thousands) of the early registrants of the MOOCs are always present in the later MOOCs, which is still a significant number. For example, in 2013, the University of British Columbia offered several MOOCs through the Coursera with the initial number of participants ranging from 19,000 to 25,000 per course (Engle, 2014).

In principle, the MOOCs have unlimited scalability. Technically, there is no limit on their final size, because the marginal cost of adding per additional participant is zero for the institutions providing the MOOCs (Wright &Reuters, 2013). The scalability of the MOOCs is probably a feature, which has attracted a great deal of attention, especially from the government, but it should be noted that its features are similar to the TV and radio broadcasting, so they are not unique to the MOOCs.

Open: There is no prerequisite for the participants except for access to the mobile /computer and the Internet. However, access to bandwidth is essential for the MOOCs that use video streaming and is probably even suitable for the MOOCs. Also, access is free for all the participants at least for early MOOCs. However, increasing the number of MOOCs changes the cost of evaluation

leading to a badge or certificate.

Generally, the MOOCs are completely open but since the participants of the MOOCs create more materials, it is not always clear whether they are the owners of the rights and how long the MOOC-developed materials will be available. It should also be noted that other types of online materials are also open and free on the Internet and they are often available for recycling the MOOC (Gore,2014).

Online: MOOCs are offered online at least at initial stages, but institutions are increasingly negotiating with law firms to use the MOOCs in a hybrid format for application in the educational institutions. In other words, the institutions would provide learner support for MOOC-developed materials through the use of the faculty-based guidelines (Kolowich, 2013).

Courses: The distinctive feature distinguishes the MOOCs from most other open educational resources is that they are organized in the form of a complete course. However, it is not understandable by the participants.

Although, many MOOCs offer certificates or badges for the successful completion of a course, they have been issued for entry or even validity purposes and they have not been accepted by the institutions providing the MOOCs themselves so far.

Sustainable Development

Sustainable development includes the four main dimensions of environmental, social, economic, and cultural all intertwined in a cohesive texture and interacts with each other so that, they cannot be imagined separately from each other (Arasteh &Amiri,2012). The cultural dimension is the key and a pillar of sustainable development as well as the heart of the business order after 2015(Hayashi et al., 2015).

Kah Hoe(2011) stated that the sustainable

university is considered by a founder of higher education to reduce the negative effects of the society on the future, improving the economic performance, restoring the ecological systems, and promoting the protection and well-being of the human(Malekinia et al.,2014).

The roles of the universities in sustainable education are as follows:

• Having a critical approach to the ideas and practices that have led to the current instability;

• Conceptualization and production of the new knowledge and skills in line with the sustainability

• Promoting and disseminating the evolving knowledge among the communities;

• Finally, fostering the critical and creative thinking among its graduates, as a result of which, the outputs of all the educational institutions, from the educators to politicians and the effective social actors will become more important (Javdani & Milimonfared, 2014).

Calder and Smith (2009) stated that the following actions should be taken in each of the main areas of academic life to achieve a model of sustainable higher education for even the foreign stakeholders in the university:

- Curriculum: To ensure that the students achieve sustainability in the literacy

- Research: To help the needs of extensive research in promoting the sustainability

- Students' Life: Sustainable development can shape an integral part of the campus culture through a variety of new programs.

- The mission, policy, and planning of the institution:

Sustainable projects need high levels of support to thrive.

- Activities: Institutions must expand their efforts to achieve sustainability in their activity.

- Development and Services: institutions must work with local and regional communities to promote sustainable development (Calder & Dautremont Smith, 2009).

Our higher education can encompass the sustainability concepts, approaches, and policies, as well as the economic activities, cultural, and social programs, and also all the foundations and educational goals, conducted and revised research and operations, and what has led to our current behavior(Rad et al.,2011).

Aesthetics and Teaching

There is a special connection between the aesthetics and the process of education, as it can lead to spontaneous educational action. The element of aesthetics provides the conditions for the educator to gain experience and it plays an important role in this regard. Educational websites are a suitable system for exchanging information and establishing communication between the students, universities, and teaching staff. Variety in the teaching strategies and methods is highly regarded by education professionals because good teaching results in good learning. According to the requirements of the present age, aesthetics can be considered as one of the important bases for achieving the goals of the education system and sustainable development (Sharifzadeh et al., 2016).

The goal of aesthetic education is cultivating aesthetic experiences in the broadest sense of the word. Aesthetic experiences are referred to as the element of pleasure in every human experience. Therefore, all forms of education can be considered as various aspects of aesthetic education. In a more precise and clear sense, aesthetic experiences are the experiences related to what are generally considered as works of art, therefore, aesthetics as a field of study is associated with a number of the activities. First, it is dealt

with the activities that combine the skills needed to create the artwork. Second, it emphasizes the ways and means of contemplation in the artworks. Third, it requires an understanding of the artwork. Therefore, aesthetic education is related to the transfer of the skills to prepare and cultivate the ability for understanding the artworks (Belle Selene, 2015).

Another goal of aesthetic education is enabling young people to express their perceptions, emotions, and ideas through thoughtful use of the media and tools, such as painting, pottery, music, speech and writing, and physical movements(Greene,1995).

The Nature of Education and Its Aesthetic Dimensions

Teaching can be defined as the two-way activities taking place between the teacher and the students with the goal of learning (Safavi, 1999). These activities will be effective and useful for the student if they lead to learning.

Behrangi, at the beginning of her book, "Teaching Patterns," quotes a statement from Joyce: ″Good teaching helps the students to learn the meaning″. Gage also defines the teaching as such "Teaching is a set of activities carried out by the teacher to facilitate or guide the learning in the learners."(Gage, 1999).

In the paper entitled "The Type of Schools We Need", Eisner talked about the joy and happiness of being on the road. She introduced it as the inner and the highest type of motivation. In another paper entitled similar to the above-mentioned one, she described the fifth characteristic of the desired schools, growing the students' interest and deep attachment, she also enumerated and emphasized the subject of the studying course "What I suggest is that the satisfaction, as a something achieved by a person while doing something interesting is not a side effect of

the educational life."(Eisner, 1999).

The Necessity of Music from the Educational Perspective

In the philosophy of educational realism, the goal of education is enabling the student to be mentally balanced, not just to adapt to his or her materials and social environment. In this philosophy, like other schools, spontaneity and creativity are taken into account, but it is believed that the product of these complex traits should be widely scrutinized. In the philosophy of realism, values are also hierarchical and suspended and empirical values are at higher levels because these values are consistent with the objective reality of the laws governing the material nature, and the values making them more compatible with each other are also fixed so that, social institutions and practices are significantly different in different parts of the world but their basic values are the same. The child must learn what is objectively beautiful and good, no matter what changes in the drawing of the aesthetics. According to the idealists, our aesthetic experience is achieved by idealizing the surrounding world. Original art, literature, play, painting, and bodybuilding will be the most successful activities when they create perspective and harmony. A person who enjoys the aesthetic taste, like an artwork, has also harmony and balance. For cultivating the beauty in a person, it is necessary to provide her with the opportunity to get acquainted with the great works of art and literature (Shushtari &Fallahan, 2016).

Different forms of distance education, especially in the current era, derived from different epistemological foundations, particularly in the field of aesthetics have influenced each of the teaching methods. Accordingly, by the needs of higher education in the field of educational content and the aesthetics of sustainable development, as one

of the key components of higher education, great attention has been paid to its mission in cultivating the worthy and capable human beings to be implemented and compiled based on the dimensions of the sustainable development (environmental, economic, social, cultural, and educational) by identifying the aesthetic characteristics of the MOOC to develop the sustainability. For this purpose, the following question was put forth: What are the features of sustainable education from the perspective of the MOOC aesthetics?

Research Methodology

The mixed method of research was used to conduct the present study and the mixed model of research (nesting) was applied to better understand the research problem. The goal of the intertwined design scheme is to collect qualitative and quantitative information simultaneously or sequentially. In the nested blend scheme, secondary data are used to further discuss or provide additional information sources that were not provided by the primary sources (Creswell, 2012). In this research, the exploratory search method (as a primary data source) and the questionnaire (as a secondary data source) were used to collect and analyze the data. Given the subject under study, in the first stage, according to the research topic, electronic sources related to the MOOC were investigated to identify the aesthetic features of the MOOC using the exploratory search. Exploratory Search is an experience-based technique for problem-solving, learning, and exploration. Douglass and Moustakas defined the exploratory search as a study to discover the meaning and essence of meaningful human experiences. Exploratory search is an adaptation of the phenomenology. However, the researcher needs to be involved in the regular monitoring of the research process (Djuraskovic&Arthur, 2010؛ Hiles, 2007).

In the exploratory search phase, the samples including the books and papers related to the MOOC were assessed. For this purpose, electronic sources, such as Google Scholar, Scirus, ProQuest, Scopus, IEEE, Sid, Biomedical, PubMed, MEDLINE (EBSCO &Ovid), ERIC, Taylor and Francis, and ScienceDirect were searched and finally, 20 related sources were selected from 1990 to 2017.

The electronic resources selected in the exploratory search phase were the sources that covered various aspects of the subject so that, sampling of the dispersion background could be performed. After selecting the sources, the content analysis method was used for coding, classification, and access to the topics (dimensions). The keywords used to search for electronic resources including the aesthetics and MOOC features. In the content analysis stage, three indicators for the open feature of the MOOC and two indicators for the online feature of the MOOC were identified, seven indicators for MOOC characteristics and three indicators for the mass feature of the MOOC were also identified in the four fields or dimensions of content, learner, teaching and learning environment, and learning organization.

In the quantitative research phase, after determining the main dimensions and features regarding the aesthetic characteristics of the MOOC (open, online, mass, and period), a 15-item questionnaire was used to investigate the views of the e-learning experts on the identified features from two perspectives. In the first stage, they were asked to express the extent of their agreement on each of the moral features in the four domains of open, online, mass, and period in the four known dimensions. The purpose of this stage was to determine the level of agreement of the e-learning experts on the correctness of the indicators of different dimensions for different

features. To this end, the experts were asked to rate their views based on a five-point scale ranging from completely unrelated to completely relevant. The Lawshe content validity index was used to analyze the ratings regarding the degree of relevance of the content of features to the field of aesthetics (Hasson et al., 2000, Diaz, 2003). Given the number of experts (36), and according to the table of critical values , all the values above 31 showed the general agreement. In the second step, the importance of each of the indicators was assessed for domains of open, online, mass, and MOOC features. So, each of the features was rated based on a five-point spectrum ranging from very unimportant to highly important. Friedman's test and average weight were used to determine the importance and priority of the traits. For determining the significance of the properties, if the average weight of each item was between 1.2 and 33.3, the property was considered as the insignificant case, between 2.34 and 3.66, was considered as a relatively important item, and if it was higher than 3.66, the item was of great importance for that period. The statistical sample studied at this stage included 36 experts in the field of e-learning and distance learning selected among 60 experts identified in the field of e-learning and voluntarily participated in this study.

Findings

Table 1 shows the findings obtained from the content analysis on the MOOC aesthetics. In the online feature, a feature was specified for the dimensions of the content and teaching and learning environment. The results of the content analysis showed the four dimensions of the learner, content, learning organization, and learning environment as the important dimensions of the MOOC aesthetics. In the online feature, a feature was specified for the dimensions of the content and teaching and learning environment; and in the open feature, one feature was identified for the dimensions of content, learning organization, and the learning environment. In the mass feature, a feature was recognized for the dimensions of content, learning organization, and the learning environment. In the course feature, one feature was specified for the learner's dimensions and two for the dimensions of the content, learning organization, and the learning environment. The table also shows the results regarding determining the relevance of each feature by the opinions of the experts according to the content validity ratio index.

The values were above 31indicating that all the features have been evaluated by the relevant experts.

Table 1. The Results of Aesthetics Dimensions And Features Of The MOOC (Massive, Open, Online, Courses)

The Period	Dimensions	Features	Content Validity Ratio
online	the content	it is supposed that the learner may achieve his inner world faster and be satisfied.	0.8
	educational environment	it may be possible to transfer the sense of the natural environment of learning to the learner simultaneously.	0.77

open	the content	use related, simple, informative images, and more.	0.84
	teaching organization	they should create attractive virtual training space and fun aspects.	0.82
	educational environment	there should be no limitations in presenting aesthetics features.	0.87
massive	the content	the type and size of used fonts should be suitable in content.	0.85
	teaching organization	there should be varied and cheerful colors in presenting systematic content.	0.86
	educational environment	this environment should be visible and sensible in all aspects.	0.88
courses	the learner	the intuitive attraction should be available in virtual training.	0.88
	the content	it should be more enjoyable than face to face training.	0.86
		2-the learning process should be creative in the mind of the learner.	0.84
	teaching organization	to escape from isolation, there should be some attractive and suitable environments.	0.87
		2-the aesthetics design of the site should be one of the characteristics of this kind of training.	0.88
	educational environment	attractive, up-to-date, complete, and based on the intellectual needs of the learners.	0.81
		emotional attraction should be available in virtual training.	0.87

Table 2 shows the results regarding the evaluation and prioritization of the aesthetic features of the MOOC from the perspective of experts in the field of distance learning and education. The evaluation results showed that the experts have considered all the features important.

The prioritization results of the features also showed no significant difference between the rankings of the features. $(0.05 > P$ ، $11.37) = 7(2\chi)$

All things were important. The results showed that it is attractive, up-to-date, complete, and based on the intellectual needs of the learners. The presence of emotional attraction in virtual education is more enjoyable than face-to-face training. The presence of visual attraction in virtual education is suitable for getting rid of the isolation using attractive elements. The learning process is creative in the mind of the learner, and the aesthetic design of the site is a feature of this type of training.

Table 3 shows the results regarding the evaluation and prioritization of the characteristics of the open MOOC aesthetics from the perspective of the experts in the field

of distance learning and education. The evaluation results showed that the experts have considered all the features important. The prioritization results of the attributes also showed no significant difference between the rankings of the attributes.

$(0.05 > P \cdot 1.59) = 7(2 \chi)$

All things were important. The results showed that using relevant, simple, and informative images, etc., without any restrictions in providing the beauty and virtual learning space is attractive and entertaining.

Table 4 shows the results regarding the evaluation and prioritization of the characteristics of the online MOOC aesthetics from the perspective of the experts in the field of distance learning and education. The evaluation results showed that the experts have considered all the features important. The prioritization results of the attributes also showed no significant difference between the rankings of the attributes. $(0.05 > P \cdot 1.66) = 7(2 \chi)$

All things were important. The results showed that the learner can achieve and satisfy inner knowledge faster, and at the same time, it is possible to transfer the sense of the natural environment of teaching to the learner.

Table 2. Aesthetics Markers Of MOOC Courses

| Aesthetics Bases | Agreement Coefficient | Status Of The Issues | | | | Priority | |
		Low Importance	Relative Importance	High Importance	Ranking Average	KI-2 Value	Ranking
Attractive, Up-To-Date, Complete, And Based On The Intellectual Needs Of The Learners.	0.81	-	-	4.25	3.33		-
Emotional Attraction Should Be Available In Virtual Training.	0.87	-	-	4.5	4.08	11.73	-
It Should Be More Enjoyable Than Face To Face Training.	0.86	-	-	4.44	4.06		-
The Intuitive Attraction Should Be Available In Virtual Training.	0.88	-	-	4.52	4.18		-
To Escape From Isolation, There Should Be Some Attractive And Suitable Environments.	0.87	-	-	4.5	4.17		-
The Learning Process Should Be Creative In The Mind Of The Learner.	0.84	-	-	4.38	3.92		-
The Aesthetics Design Of The Site Should Be One Of The Characteristics Of This Kind Of Training.	0.88	-	-	4.55	4.26		-

Table 3. Aesthetics Markers Of MOOC Open

Aesthetics Bases	Agreement Coefficient	Low Importance	Relative Importance	High Importance	Priority		
					Ranking Average	KI-2 Value	Ranking
Use Related, Simple, Informative Images, And More.	0.84	-	-	4.36	1.93		-
There Should Be No Limitations In Presenting Aesthetics Features.	0.87	-	-	4.5	2.1	1.59	-
They Should Create Attractive Virtual Training Space And Fun Aspects.	0.82	-	-	4.3	1.97		-

Table 4. Aesthetics Markers Of MOOC Online

Aesthetics Bases	Agreement Coefficient	Low Importance	Relative Importance	High Importance	Priority		
					Ranking Average	KI-2 Value	Ranking
It Is Supposed That The Learner May Achieve His Inner World Faster And Be Satisfied.	0.8	-	-	4.22	1.57		-
It May Be Possible To Transfer The Sense Of	0.77	-	-	4.08	1.43	1.66	-

Table 5. Aesthetics Markers Of MOOC Courses

Aesthetics Bases	Agreement Coefficient	Low Importance	Relative Importance	High Importance	Priority		
					Ranking Average	KI-2 Value	Ranking
There Should Be Varied And Cheerful Colors In Presenting Systematic Content.	0.86	-	-	4.44	1.94		-
The Type And Size Of Used Fonts Should Be Suitable In Content.	0.85	-	-	4.44	1.96	1.13	-
This Environment Should Be Visible And Sensible In All Aspects.	0.88	-	-	4.55	2.1		-

Table 5 shows the results regarding the evaluation and prioritization of the characteristics of the mass MOOC aesthetics from the perspective of experts in the field of distance learning and education. The evaluation results showed that the experts have considered all the features important.

The prioritization results of the attributes also showed no significant difference between the rankings of the attributes. $(0.05>P،1.13)=7(2\chi)$

All things were important. The results showed that the use of various and cheerful colors in providing the system of contents is appropriate for the type and size of the letters used in the content, which are visible and felt in all the aspects of this environment.

Conclusion

This mixed-methods study was conducted to identify and evaluate the aesthetic features of the MOOC (open, online, courses, and mass) for sustainable education. the qualitative results of the study showed that the aesthetics of the mass courses of the MOOC can be investigated in terms of the four dimensions of the learner, content, learning organization, and educational environment. The aesthetics of the MOOC should be visually appealing to the learner, attractive and enjoyable in terms of the content, and should be reminiscent of the natural and tangible environment, regardless of any constraints. The results also showed that the learner can gain and satisfy the inner knowledge faster and at the same time, it is possible to convey a sense of the natural environment of teaching to the learner, respectively. The most important features of the open-mouthed aesthetics, such as using relevant, simple, and informative images, etc. make the virtual learning space attractive and entertaining, and there are no restrictions on providing the beauty. The most important

features of a lot of mock aesthetics, such as the type and size of the letters used in the content, the variety of happy colors in the system of contents, and the visibility and feeling are included in the dimensions of the content and learning environment. The most important features regarding the aesthetics of the MOOC courses, such as visual attraction are available in virtual education, and it is more enjoyable compared to the face-to-face training. The learning process is creative in the mind of the learner; and it is suitable to get rid of the isolation, using attractive site design. Being up-to-date, complete, and based on the intellectual needs of the learners, and emotional attraction in virtual education are included in the dimension of the learning environment. The results of the present study are consistent with the studies by the American Society for Training and Development (ASTD) (2013), Gash (2010), and Alvarez (2009) on the competency model that reported similar criteria in this regard. The qualitative and quantitative results of the mock aesthetics indicated the same effect by each of the four dimensions of teaching and learning, but according to the results obtained regarding the mock aesthetics, the dimensions of the content, learning organization, and learning environment have a significant and special effect on the learner's characteristics in terms of the mock aesthetics.

Aesthetics can be considered as one of the most important platforms for achieving the goals of a sustainable educational system. On the other hand, practicing and cultivating the motor systems through the artistic and aesthetic activities pave the way for the growth and emergence of a kind of practical abilities and capabilities in the learners.

In fact, in the field of education, as much as the means (tools and methods) are derived from the results (goals), the results are also

influenced by the tools or means. One of the limitations of the present study was the collection of the data from the Delphi method and the lack of coordinated results and a

strong background on the aesthetics of sustainable education in the country (Iran) and abroad.

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