# The Impact of a Digital Educational Environment in the Development of Aesthetic Judgments among Students of the Institute of Fine Arts in the Material of Design Techniques

Dr. Hussein Mohammed Ali Al-Saki

Anya Naji Shakib

#### Abstract

The study aimed to know the impact of digital education on the development of aesthetic judgments in the work of the students of the Fine Arts Institute in the subject of design techniques. The aim of the research is to search for the research category by searching for a sample of the Institute of Beautiful Beauty, and an experimental sample (12) students was formed. In order to reach the results of the research, the researcher used a set of statistical methods, including: the Wilcoxon test for one sample to show the results reached by the research, and the Keuder Richardson equation / 20 and was used to find the stability factor for the cognitive achievement test, and the equation of the difficulty factor for the test tests. The discrimination coefficient equation, and this equation was used to conduct the experimental examination of the items of the cognitive achievement test. The Holistic Equation This equation was used to find the coefficient of stability for the form of grading for skill performance and to identify the agreement between the experts.

#### • The most important results of the study showed:

- 1- The digital educational environment contributed to increasing the achievement scores of the students of the experimental group.
- 2- The digital educational environment has contributed to increasing the skill levels of the students of the experimental group.
- 3- The digital educational environment has contributed to increasing the degrees of aesthetic judgments test among the students of the experimental group.

# • Based on the findings of the study, the researcher recommended several recommendations, including:

- 1- The researcher recommends adopting the aesthetic judgments scale adopted in the current study and including it in the course of design techniques in fine arts institutes.
- 2- Include the interior design standards reached by the study in the design techniques curriculum for the third grade in fine arts institutes.

# • To complement the current research, the researcher suggested several proposals, including:

- 1- Conducting a study for the development of aesthetic provisions in other technical education materials.
- 2- Building another scale similar to the current research scale, in order to use it in the primary stages of the technical education subject.

**Keywords:** digital education, judgment, fine arts, design

#### 1. Introduction

Artistic education in its modern and contemporary concept and through the lessons of artistic education as well as the study of art patterns, seeks to provide learners with knowledge, especially aesthetic knowledge, as it works to help learners in developing their potential in how to acquire and develop this knowledge (aesthetic) and seek to refine their feelings and guide their abilities - mental and emotional - .

Aesthetic education and the development of aesthetic judgments, is considered a way to build the personality of the individual and its integration, it is not an end in itself, but it is a means through which individuals sense the reservoirs of beauty in things, the development of aesthetic aspects of taste, judgments and education is necessary for human life, it transcends it to live slender sense, thin feelings for the country and not ignorant, but good taste and taste, so that through the development of these aspects to add touches of beauty to many things It gives his life meaning and the life of the whole society a good taste. (Slim, 2001: 3).

Since the subject of design techniques is one of the most important materials of artistic education on the one hand, and methodological materials in the institutes of fine arts on the other hand, it is no less important than any other subject, so the importance of researching followers of the modern method as a way of teaching that helps perhaps to communicate the material better and faster.

Based on the above, the current search problem can be summed up by the following question:

Is there a trace of a digital learning environment in the development of aesthetic judgments in the work of students of the Institute of Fine Arts in the material of design techniques?

The importance of research:

## The importance of current research lies in the following points:

- 1- The current research may serve educational institutions and those who are responsible for education and learning that have not been provided by modern teaching methods, especially with regard to the development of aesthetic judgments for learners
- 1. The current study presents an educational design model for a digital learning environment to be employed in learning.

- 2- The role that the digital educational environment may play in education as a scientific and cognitive tributary contributes to moving education forward.
- 3- The possibilities of the digital educational environment in reducing efforts and cost and shortening time in the educational and educational process.
- 4- The measure prepared may help raise the level of aesthetic judgment among learners.
- 5- Building a measure of aesthetic judgments in the subject of design techniques is a new experience in the technical and educational field within the limits of the science of the researchers -
- 6- Current research may contribute to providing the learner with the opportunity to expand his knowledge of knowledge and knowledge through his awareness of the educational material.
- 7- The role that the digital educational environment may play in its theoretical and technological dimensions, spreading the educational spirit among the new origins, which is imposed by the scientific and technological revolution, which is one of the most important emulations of the tremendous progress in communication technology and other applications on Earth and in space and other communication theories

#### Research objectives:

- a. Knowing the impact of teaching the subject of design techniques using a digital educational environment to develop aesthetic judgments in the work of students of the Institute of Fine Arts.
- b. Measuring the impact of this program, and to achieve this goal the researchers formulated the following hypotheses:

# • The first hypothesis:

(There are no statistically significant differences at the indicative level (0.05) between the average grades of the experimental group students in the tribal and remote attainment test)

#### • The second hypothesis:

(There are no statistically significant differences at the level of indication (0.05) between the average grades of female students of the experimental group in the tribal and remote skilled performance test)

#### • The third hypothesis:

(There are no statistically significant differences at the level of indication (0.05) between the average grades of the students of the experimental group in the tribal and remote aesthetic judgment test)

Research limits:

Spatial boundaries: Institute of Fine Arts for Girls / Karkh / Baghdad.

Human Boundaries: Third Grade Students / Morning Study

Time Limits: School Year 2020/2021

Objective limits: Adopting a digital learning environment in the teaching of the subject of design techniques, which was designed by the researcher

# **Determining terms:**

#### • First: Digital educational environment

Abdul Hamid (2010) knew her as:

A flexible environment for learning without land or walls that transcends the limits of time and space, in which learners sit in front of computers in their schools, homes or elsewhere, study courses programmed on computers or through websites, communicate with their teachers simultaneously or simultaneously, to obtain dialogue, sources, information, etc., and interact with their colleagues and teachers (Abdul Hamid, 2010:49).

#### **Procedural definition:**

Are all the processes, procedures and conditions designed by the computer that achieve the completion of the work of the design material for students of the Institute of Fine Arts both inside and outside the class.

#### • Second: Aesthetic judgments:

Amin (2001) knew her as:

Valuable provisions linking the critical mental processes associated with governance with the understanding, understanding, evaluation and balancing in terms of the best, the best and the most beautiful, and the participation of conscience with the satisfaction and satisfaction associated with this process. (Amin, 2001:13).

#### **Procedural definition:**

It is the degree to which the student wisely obtains the most beautiful design, as a result of passing through educational experiences related to his study of the subject of design techniques.

#### • Third: Design techniques:

Wasiti (1999) knew him as:

(Planning, organizing, coordinating and context of work to produce a work of art on the center of a conveyor, according to the researcher's concepts of purpose and measurement). (Wasiti, 1999: 8)

#### **Procedural definition:**

The researcher adopts the definition of the previous wasiti of design as a procedural definition for its research in order to conform to the goal of research

#### 2. Literature Review

First Topic: Digital Educational Environment

# Technology and digital education

Education technology has uses beyond the use of some types of technology in teaching, but it is seen as a process intended to analyze educational problems and think about finding innovative solutions for them after experimenting with these solutions and evaluating their effectiveness in light of achieving their predetermined goals. (Saada, 2003: 200).

The concept of technology means that it is "a variety of experiences that are formed and that opportunities are provided for the learner to pass through, including teaching processes that show the results of what the student learns and this may be through school or other social institutions that are responsible for education and require these experiences to be logical, applicable and impactable." (Meet me, 1989: 76).

# • Features and characteristics of e-learning:

E-learning has multiple features, and these features vary according to the availability of each of the technological methods used, and the features of e-learning can be summed up as follows:

- 3. His ability to teach large numbers of learners without the restrictions of time or place and in a short time.
- 4. Immediate and rapid evaluation, recognition of results and correction of mistakes.
- 5. Promoting self-learning and collective participation among learners.
- 6. The multiplicity of sources of knowledge as a result of contacting different websites on the Internet.
- 7. Taking into account the individual differences of each learner as a result of self-use.
- 8. The ease and speed of updating information content.
- 9. Developing and improving knowledge and research skills. (Abdul Hamid, 2010: 21)
- 10. Digital learning environment:

Designing a digital learning environment is primarily aimed at students learning for themselves, so it includes a degree of freedom for learners in the work of reason, thinking and cooperation among themselves on the one hand and with teachers on the other, in order to achieve the required goals.

Mansour (2001) points out that the digital learning environment is about the traditional learning environment in terms of form, equipment, activities and interaction of learners with the environment, as audio and image can be transferred, digital cameras used and e-mailed to colleagues in other locations or discussions with them through the web interactively. (Mansour, 2001: 56).

The digital learning environment is one that transcends geographical and temporal boundaries to provide and benefit from educational service and the best example of this environment is network-based learning. (Ahmed, 2001: 40).

# • Components of the digital learning environment:

The components of the digital educational environment can be identified in four elements: (electronic classrooms, electronic courses, electronic libraries, electronic laboratories). (Alvar, 2001:40).

Digital education and learning through this environment require special skills that must be provided by both the teacher and the learner, which are summarized in computer handling skills, capabilities and internet services and how to employ them. (Alvar, 2001: 44).

#### **Aesthetic judgments**

The mainstay of aesthetic studies and aesthetics is aesthetic judgment because any production does not acquire its aesthetic value among people except in the element of obligatory and demanding of the recipients of this production, as well as the way they adopt in their demands, which is only evident in the aesthetic judgment called this production.

Aesthetic judgment is a judgment linked to the aesthetic values of things, i.e. it is the judgment of the existence of the characteristic of beauty in it or not, it often depends on the sensory or mental appreciation or their effects together (wolff.1983:50).

# • Types of aesthetic judgment:

There are several divisions of aesthetic judgments, but most philosophical theories agreed that they were divided into two main types and that all the divisions of judgments existed, but it belongs to these two sections, namely:

#### Type 1: Which is related to the approach used in judging works of art.

The other type: which is related to the type and nature of aesthetic value (Chalabi, 1998:21).

# Aesthetic experience and its impact on aesthetic judgments:

There are a range of factors affecting aesthetic judgments, including aesthetic experience and the resulting aesthetic experience, which is an important key factor with an impact on aesthetic judgments, and the aesthetic experience varies among individuals as a result of the variation of aesthetic experiences experienced by these individuals, as experience (i.e. experience) depends on the treasury of previous experiences, because the individual experienced sensory values (Haddad, 1983:16).

# The aesthetic experience consists of a range of overlapping stages:

Aesthetic experience aesthetic attitude aesthetic response aesthetic experience aesthetic experience

# Third Research: Design Techniques

#### • Design concept:

Any work of art consists by its nature of visual elements that artists and critics agree to exist to form through this work of art, through which the artist seeks to organize and invent it in his own style, which puts all his experience, skill and inclination in producing a new work characterized by beauty, innovation, originality and benefit to the recipients.

Design is the result of the set of processes that the designer accomplishes and influences in his environment in order to shape, shape and adapt it in order to produce that wording in forms that meet his basic needs in life or those whose adaptation leads to man being able to resist nature, harmony and harmony. (Abdullah, 2008: 122)

The designer creates beautiful things, which is to plan and create some form in order to satisfy the human need in functional and aesthetic content, so there are foundations adopted by the design process, including the ability of the designer to innovate in the development of all his cultural and architectural abilities, the formation of design work to achieve three axes revolving between function and beauty first and the artist designer second and user iii. (Age, Others, 2008: 13)

#### • Types of designs:

#### The types of design art can be totaled in three types:

1. Industrial design: It is an applied art that combines beauty and usability in the design of products with quantitative production in order to improve sales.

It is also an innovative organization created by the industrial designer influenced by his sensory, artistic and physical awareness to employ the functional and performance benefit of things and also employ aesthetic values that love man and bring him closer to the products he uses in his daily life. (Website, Wikipedia, Encyclopaedia)

2. Interior design: Is to develop the appropriate treatments for the difficulties that hinder the field of movement within the architectural space and the ease of use of this space and the including furniture and equipment and make it comfortable and distinctive with its aesthetic and functional measures.

According to the researchers, the art of design is the art of planning, innovation or conscious regulation of the inner spaces within the inner shell of the man-made building and directly reflects the influence of taste and social culture.

The interior design is linked to the architecture, one of which complements the other and is a performance and aesthetic unit to meet the purpose of the building, and the interior design is interested in the development of plans and designs for the interior space of the buildings in accordance with technical and architectural standards and the interior design develops a comprehensive layout of the perimeter of the spaces aimed at reconciling aesthetic performance requirements. (Husseini, 2008: 48)

3- Print design: it is an informational and stimulating method found as a craft since the mid-20th century where people searched for ways to give visual images ideas and store information in a typographical way.

# • Design foundations:

In every art there must be foundations through which the elements are organized and through which we launch the plan of organization.

These foundations "contribute to the process of organizing and aesthetically directing the artwork, and this is what the philosophy of arts education and learning is based on in accordance with the scientific curriculum to try to reach the degree of innovation and creativity". (Nobler, 1987: 117).

# The design foundations are called aesthetic foundations and design foundations:

- 1. Unity: Means integration between the units of the artwork although it may be from different sources and are the most important factors of creativity in the artwork, without which the artwork appears disjointed and fragmented.
- 2. Balance: Balance can be achieved in color, value, shape, direction, as well as other elements as achieved by multiple classifications including:
  - A. Symmetrical balance.
  - B. Asymmetric balance.
  - C. Radiation balance.
  - D. D-phantom balance. (Falcon, 2009: 168).
- 3. Contrast: It means difference, contradiction or contrast and is achieved in design through several practices, including the difference between similar elements and of one nature but different in measurement, and the contrast can be divided into four sections:
  - A- Variation in size.
  - B- Contrast in shape.
  - C- Contrast in degree of gravity.
  - D- contrast in direction. (Club, 2011: 69).
- 4. Harmony is associated with the meaning of adaptation and designer emphasizes the harmony between the components of the artwork as it has the ability to adapt to its environment as harmony occurs between the components of the work and its elements so we notice the harmony between colors and the relationship of shapes with each other. (Darisa, et al., 2008: 170).
- 5. Ratio and proportionality: it is a relationship between two things or two elements, and we note the interest in what was from ancient times in The Greeks and Greece, and is called for gold because of its role in convincing the viewer of balance and his sense of beautiful stability. (Fadi, 2011:71).
- 6. Sovereignty means that one of the elements involved in the design structure controls the rest of the other elements in order to achieve the distinction and difference of any variation not only in form, but also includes color, size, light value, subject, movement, idea and texture. (Abdul Halim, Ahmed Hafez Rashdan, 1985: 90).

#### Types of sovereignty:

- A. Sovereignty by contrast in colors.
- B. Sovereignty through sharpness.
- C. Sovereignty by proximity.
- D. Sovereignty through isolation.
- E. Sovereignty by texture.
- F. A sovereignty through movement.
- G. Sovereignty by unifying the direction of consideration.
- H. Sovereignty by different shape of lines. (Abdul Hadi, 2006: 114)
- 7. Rhythm: Is the organization of the intervals between the units of the artwork, which is the relationship between time and space, which is the organization of the intervals of volumes or colors first arrange their grades. The lines divide the artwork space into surface intervals, and rhythm is often achieved by repetition, but it takes on several patterns, the most important of which are:
  - A. Monotonous rhythm.
  - B. Non-monotonous rhythm.
  - C. Free rhythm.
  - D. Growing rhythm.
  - E. Decreasing rhythm. (Darisa, 2008: 168).
- 8. Shadow and light: which is the state of visual perception as a result of the fall of light rays on objects and their reflections happens to us the so-called lighting process either objects or areas where light has not reached it can be called shadow, and if we want to call the light a positive element, the shadows are the negative opposite to them they are an inevitable result of the fall of light on the bodies. (Riad, 1974: 122).

#### **Previous studies:**

Previous studies selected by the researchers were limited to three axes: (studies on the digital educational environment, studies on aesthetic judgments and studies on the subject of design techniques).

#### 1- Study (Mozan, 2013)

(Building a digital technology-based training program to develop the skills of students in the Technical Education Department in the subject of planning and colors)

The study aimed to know the impact of the construction of a training program based on digital technology to develop the skills of students of the Department of Technical Education in the subject of planning and colors and the place of study was the Faculty of Basic Education / University Of Mustansiriyah and the number of members of the sample (54) students distributed equally between two halls, one of which was randomly selected: Hall (1) Experimental Group, Hall (2) The control group for the academic year 2005-2006 was one of the requirements of the study to design a training program that includes (5) educational units, its effectiveness was measured by the design of two types of tests and the study tools were: a test of cognitive performance (tribal and after), measured by a

learning test. A test of skilled performance (before and after me) and measured by the mediation of the skilled performance evaluation form.

The researcher used a set of statistical methods, namely the T-Test. The results of the study outperformed the students of the experimental group studied using digital technology, over the students of the control group that studied in the traditional way, and the difference was statistically significant at the level of indication (0.05).

Studies on aesthetic judgments:

# **2- Al-Rubaie Study (2005)**

(Building a measure of aesthetic judgments in drawing among high school students)

The aim of the study was to build a measure of aesthetic judgments in painting, among high school students, and to achieve this goal aesthetic judgments were defined

The basic research sample consisted of (300) students, 150 students and (150) students, randomly selected from (10) secondary and preparatory schools, and the researcher used the experimental method, but the research tool was a measure of aesthetic judgments consisting of (32) paragraphs The researcher (32) chose a colorful global painting and caused a deliberate defect in one of the foundations or technical elements or both through the program (Photo shop) so that the researcher (96) has a color image in which (32) original paintings and (64) pictures matching the origin except for the defect that was created in it.

The most important statistical methods were: difficulty factor, vertebrae recognition factor, original binary link factor, Pearson link coefficient, t-test test, Kidder-Richardson and Toki test.

The results showed that there are statistically significant differences at the level (0.05) in the aesthetic judgments in the drawing in the students of the different regions from which the research sample was withdrawn, and the results showed that there are no statistically significant differences according to the sex variable.

#### Studies on the design subject:

#### 3- Study (Majdi 2011)

(Following the use of the slide show in the achievement of students of the Institute of Fine Arts for design subject)

#### The aim of the research was to:

- 1- Designing and applying proposed teaching plans using digital slides in the teaching of the subject (print design) in the design department of the Institute of Fine Arts.
- 2- To know the impact of the proposed plans by displaying slides in the collection of students in the design department in the teaching of the subject (print design).

The research community may be second-stage students in the design department /Institute of Fine Arts - Baghdad Al-Karkh / Male, and on (print design material).

The research sample consisted of (20) students distributed in two halls by (10) students in Hall A and (10) students in Hall B, where hall A students represented the experimental sample and hall students (b) the control sample, and the search sample was tested in the intentional manner.

The researcher used the experimental approach to research and adopted the experimental design called the design of the two equal groups (experimental and controlled).

The statistical methods were: testing (and lakoxen) as well as difficulty factor and discrimination factor for attainment testing and for the purpose of identifying the significance of the differences between the two groups the researcher used the test (Man Winti).

The results showed the superiority of the experimental group that is on display in the slide in the design material on the control group, which in the traditional way studies the material itself.

#### 3. Research Methodology:

Since the current research aims to find out the impact of a digital learning environment in the development of aesthetic judgments in the work of students of the Institute of Fine Arts in the material of design techniques, the choice of the experimental curriculum is appropriate to achieve that goal.

#### **Experimental design:**

The researchers followed the one-group experimental design with the achievement tests (cognitive) and al-Mahari and the tribal and remote aesthetic judgment scale for its suitability for the research sample, as in Table 1.

Total	sampl	A pre-	Independen	Post	Indicatio	The
	e	selection	t variable	selection	n level	dependent
						variable
Experiment	12	Knowledge	A digital	Knowledge	0,05	Cognitive
al		achieveme	learning	achieveme		achieveme
Control		nt	environme	nt		nt - skill
		Skillful	nt	Skillful		performanc
		performanc		performanc		e -
		e		e		aesthetic

Aesthetic	Aesthetic	judgments
judgments	judgments	scale
scale	scale	

#### Research community:

The current research community is a student of the Institute of Fine Arts / Department of Interior Design for the academic year 2020-2021 (morning study only), numbering (62) students distributed to the Institutes of Fine Arts, which includes the Department of Interior Design.

#### Research Sample:

Based on the components of the experimental design chosen by the researchers and in order to provide the safety of this design, the students of the third grade of the Institute of Fine Arts / Karkh were selected in the morning study, selected in a random draw manner and reached (12) students constituted a percentage (21.5%) From the original society.

Determining the aesthetic criteria contained in the article:

After setting the general objectives, the scientific material planned for this experiment was collected and analyzed, which was obtained from the prescribed vocabulary of the curriculum and derived from the researchers (9) criteria for this subject, namely:

- 1- The general composition of the design
- 2- The relationship between the parts or forms that make up the design
- 3- Spaces between design parts
- 4- The color value of the design in terms of multilocation
- 5- The color value of the design in terms of color bonding
- 6- Symbolic expression of design colors
- 7- The movement and organization of design forms
- 8- Design boundary framework accuracy
- 9- The level of cleanliness of the design.

All of them have been approved by experts, except for standard 9, which has been excluded from being included in the 8 criteria, thus becoming (8) aesthetic criteria in their final form.

#### Research tools:

Since the current research aims to develop the aesthetic rules of art among third-graders in the subject of design techniques, the researchers prepared the following:

1. Cognitive achievement test to measure the cognitive aspect in students sample research in the subject of design techniques.

The cognitive attainment test was based on objective tests (multiple selection), which was used to learn students' information before applying the experiment, as well as to identify

the impact of a digital educational environment remotely, as it contained (30) paragraphs and four alternatives (3) of which are wrong and the fourth correct, and was determined (one degree) for the correct answer and (zero) for the wrong answer, if the total score of the cognitive achievement test is equal to (30)

2-Mahari achievement test to measure the skill side in students sample research in the subject of design techniques:

The skilled test may be from the skilled performance evaluation form of (8) aesthetic criteria, a five-year standard consisting of (5) degrees has been set (showing the components of the artwork technically - excellent (5) - good (4) -very good (3) - acceptable (2) - weak (1).

T	Aesthetic standard	Rating	Rating				
		excellent	good	very	acceptable	weak	
1				8004			

Thus, the total degree obtained by the student through the evaluation of his artwork according to the form prepared for this purpose is equal to (40) degrees, and the lowest score is (8) degrees.

3- Adopting a measure of aesthetic judgments to measure aesthetic judgment among students of the Institute of Fine Arts in the subject of design techniques.

# The paragraphs of the scale have been prepared as follows:

- 1- Choose (30) a picture of the interior design.
- 2- Causing a deliberate defect in one or more criteria in each design by Photoshop, without affecting the other criteria at work, so the researchers (90) have a color image of interior designs (30) original design and (60) identical design to the original except for the intended defect in it.
- 3- Merging each (3) identical images to be in total the paragraphs of the initial version of the scale consisting of (30) paragraphs.

#### **Statistical means:**

The statistical methods used in this research, whether in its procedures or in analyzing its results, are:

- 1. Test and lecoxen for one sample to show the results of the research.
- 2- Kewder Richardson Equation / 20

Used to find stability factor for cognitive attainment testing

K. R. 
$$-20 =$$

$$NQ \qquad \left( \begin{array}{c} 1 - \sum NR - NF \\ \hline \\ NQ - 1 \end{array} \right)$$

# **3- Difficulty factor equation:**

This equation was used to conduct an experimental examination of cognitive attainment test vertebrae

# 4. The equation of the factor of discrimination

This equation was used to conduct an experimental examination of cognitive attainment test paragraphs.

$$\begin{array}{ccc} & N_1 - N_2 \\ \\ DE = & \times 100 \\ \hline & N/2 \end{array}$$

#### **5. Holisty Equation**

This equation was used to find the stability factor for the grade estimate form for skilled performance and to identify the agreement between the experts.

$$R = \frac{2 (C1, 2)}{C1 + C2}$$

#### 4. Results and Discussion

# • The first hypothesis:

(There are no statistically significant differences at the indicative level (0.05) between the average grades of the experimental group students in the tribal and remote attainment test)

To validate this hypothesis, the researchers used wilcoxon to detect differences between tribal and remote measurements with regard to averages of the grades of the experimental group's attainment test scores and table (3) illustrating the results of this hypothesis.

Table (3) shows the significance of the differences between the averages of the tribal and remote measurements of the members of the experimental group on the attainment test

Variable	Rank	the	Average	Sum	Welloxo	Welloxon value		
		number	Rank				significance	
				Rank				
					Calculated	Scheduling		Significance
								of
								difference
Achievement	Negative	1	1	1			0,05	D.
test					1	14		Statistically
Variable	Positive	11	7	77				

It is evident from the above table that the difference is statistically significant because the calculated value of Lucoxon (1) is smaller than the table value of (14) for Cocon at the level of significance (0.05). This means that the digital educational environment contributed to an increase in the achievement scores of the students of the experimental group, which indicates the existence of statistically significant differences at the level of significance (0.05) between the average grades of the test scores of the students of the experimental group.

#### The second hypothesis:

(There are no statistically significant differences at the level of significance (0.05) between the average grades of the experimental group students in the pre and post skill performance test)

To verify the validity of this hypothesis, the researchers used the wilcoxon test to reveal the differences between the pre and post measurements in relation to the averages of the ranks of the test scores and the total results of these tests.

Table (4) shows the significance of the differences between the average rank of the pre and post measurements of the members of the experimental group on the skill performance test

•	

Variable	Rank	the number	Average Rank	sum		Welloxon v	alue	The level of significance		
		110/1110 01		Rank				218		
						Calculated	Scheduling		Significa	nce
									of	
									difference	e
Achievement	Negative	2	1,50	1	=			0,05	UN-	D.
test						1	14		Statistical	lly
Variable	Positive	10	7,50	77						

It is clear from the table above that the difference is statistically non-D because the value of the calculated coxen (3) is smaller than the value of the scheduling coxen (14) at the indicative level (0.05). This means that the digital educational environment has contributed to the increased levels of skilled performance among the students of the experimental group.

#### The third hypothesis:

(There are no statistically significant differences at the level of indication (0.05) between the average grades of the students of the experimental group in the tribal and remote aesthetic judgment test)

To validate this hypothesis, the researchers used wilcoxon to detect differences between tribal and remote measurements with regard to averages of the grades of the experimental group's aesthetic judgment test scores and table (5) illustrating the results related to this hypothesis.

Table (5) shows the significance of the differences between the averages of the ranks of the tribal and remote measurements of the members of the experimental group on the test of aesthetic judgments

Variable	Rank	the	Average	sum	Welloxon value		The level of		
		number	Rank					significance	
				Rank					
						Calculated	Scheduling		Significance
									of
									difference
Achievement	Negative	0	0	0	=	0	14	0,05	UN- D.
test									Statistically
Variable	Positive	12	6,50	78					

It is clear from the table above that the difference is statistically non-D because the value of the calculated coxen (zero) is smaller than the value of the scheduling coxen (14) at the indicative level (0.05). This means that the digital educational environment has contributed to an increase in the degrees of beauty testing for the students of the experimental group.

# The size of the effect using cohen's equation:

It means the difference between the averages of both tribal and remote tests divided by the weighted standard deviation, and helps us know the magnitude of the impact to determine the relative impact of the independent variable, and to determine the level of impact cohen equation has been applied and there is a criterion for the size of the effect where:

- The effect is simple: 0.20.
- Average effect: 0.50.
- Significant impact: 0.80.
- The size of the trail was extracted as follows:
- 1. The arithmetic average, standard deviation of the tribal and remote tests and the weighted standard deviation of the experimental group's attainment test variable were extracted as described in table (6)

Table (6)

Arithmetic average and standard deviation of tribal and remote tests

The testing	The	arithmetic	Standard deviation	Weighted deviation
	mean			
Previous	10,500		1,931	5,160
Dimensional	23,417		4,852	

After the application of the Cohen equation, the impact was 2.50, so the impact of the digital educational environment in increasing collection has a significant impact on the experimental group.

2- The arithmetic average, standard deviation of the tribal and remote tests and the weighted standard deviation of the experimental group's amnial performance test variable have been extracted as described in table (7)

**Table (7)** 

Arithmetic average and standard deviation of tribal and remote tests

The testing	The	arithmetic	Standard deviation	Weighted deviation
	mean			
Previous	6,500		1,679	3,447
Dimensional	12,167		2,725	

After the application of the Cohen equation, the impact volume was 1.64, so the impact of the digital educational environment in increasing the skill performance has a significant impact on the experimental group.

3. The arithmetic average, standard deviation of the tribal and remote tests and the weighted standard deviation of the experimental group's aesthetic judgment test variable were extracted as described in table (8)

**Table (8)** 

Arithmetic average and standard deviation of tribal and remote tests

The testing	The	arithmetic	Standard deviation	Weighted deviation
	mean			
Previous	9,833		1,467	4,064
Dimensional	24,000		3,219	

After cohen's equation was applied, the impact was 3.48, so the impact of the digital educational environment in increasing the testing of aesthetic judgments has a significant impact on the experimental group.

#### 5. Conclusions:

The researchers attribute the positive impact of the digital educational environment on the students of the experimental group in the remote test due to what is included in the digital education environment, and one of its most important features is:

- 1. Presenting the material in a sequential, coherent and gradual manner is easy to difficult, dividing each educational stage into a set of tasks, organizing procedures and practicing education for students.
- 2- The possibility of retrieving information for students at different times determined by them, by recording the lesson and reprinted it on discs. The digital educational environment is therefore met with their interests and aspirations in learning and carrying out business and is in line with the nature and character of the times at present.

#### Recommendations:

#### In light of the research's findings and conclusions, the researchers recommend:

- 1- The need to adopt digital education in the educational process in general, and in art institutes in particular, and in most subjects of study because of the enrichment of practical and theoretical materials, and its treatment of many modern problems.
- 2- Include the interior design standards reached by the study in the curriculum of the subject of design techniques for the third grade in the institutes of fine arts.
- 3. Urge teachers to employ digital education in teaching design techniques and training them in preparing educational programs along with textbooks.

#### Propositions:

1- Conducting a study to develop aesthetic judgments in the subject of sculpture in the department of artistic education.

#### References

- 6. Ahmed Hamed Mansour, E-School in Learning Environments, 8th Annual Scientific Conference of the Egyptian Society of Education Technology, October 29-3, 2001.
- 7. Galgo, J. (2020). Endeavours towards Academic Success: An Investigation of Underprivileged Student's Life Experience. *Middle Eastern Journal of Research in Education and Social Sciences*, *I*(2), 94-106. https://doi.org/10.47631/mejress.v1i2.46
- 8. Amin, MaanJassim Mohammed, Aesthetic Judgment between Sensory Perception and Artistic Taste, University of Baghdad, Faculty of Fine Arts, Unpublished Master's Letter, 2001.
- 9. Chalabi Xuan Abdul Khaleq, Figure and Beauty, Unpublished Master's Letter, Department of Architecture, Technological University, 1998.
- 10. Haddad, Ziad Salem, Artistic Criticism, Research in Art Criticism, Dar Al-Manahel, 1983.
- 11. Husseini Abdullah, Iyad Hussein, Design Foundations, Part 3, Sharjah, 2008.
- 12. Darisa, Mohammed Abdullah and Others, Graphic Design History, Arab Society Library, Amman, 2008.

- 13. Al-Rubaie, Zainab JassimAbboud, Building a measure of aesthetic judgments in drawing among high school students, (unpublished master's letter), Diyala University, Faculty of Basic Education, 2005.
- 14. Riad, Abdel Fattah, Composition in Fine Arts, Cairo, Arab Renaissance House, 1974.
- 15. Saada, Jouda Ahmed (2003): Teaching thinking skills, I1, Al Shorouk Publishing and Distribution House, Amman.
- 16. Salim, Maryam Daoud, Psychology of Learning, I1, Beirut, Dar Al-Nahda, 2001.
- 17. Al-Saqr, Ayad, Design Basics and Approaches, I1, Amman- Jordan, 2009.
- 18. Abdel Halim, Opening the Door, Design in Plastic, Cairo, 1985.
- 19. Abdel Hamid, Abdel Aziz Tolba, E-Learning and Education Technology Speakers, Modern Library for Publishing and Distribution, Egypt, 2010.
- 20. Abdul Hadi, Adly Mohammed, "Principles of Design and Color", I1, Arab Society Library for Publishing and Distribution, Amman, Jordan, 2006.
- 21. Okanya, A. V., Vincent, D. A., & Onyekachi, A. J. (2021). Rationale for Material Selection in Landscaping for Checking Intrusion in Public and Private Primary Schools in Nsukka Urban Area of Enugu State, Nigeria. *Middle Eastern Journal of Research in Education and Social Sciences*, 2(1), 119-129. https://doi.org/10.47631/mejress.v2i1.141
- 22. Abdullah, Salem, Proposed Design on Computer Use in Education, Faculty of Education, Qatar University, Educational Research Center, 2008.
- 23. Omar, Hadi Mahmoud, and others, Furniture Design Concepts Technologies, Ela Publishing and Distribution House, I1, Amman, 2008.
- 24. Fadi, Noureddine Ahmed et al., Principles of Printing and Graphic Design", i1, Arab Society Library for Publishing and Distribution, Amman, Jordan, 2011.
- 25. Al-Far, Ibrahim Abdul Wakil, Computer Use in Education, Think Tank Printing and Publishing, Amman, 2001.
- 26. Al-Luqani, Ahmed Hussein, Ali Al-Jamal, Dictionary of Educational and Cognitive Terms in Curricula and Teaching Methods, I1, World of Books, Cairo, 1989.
- 27. Al-Majdi, Supporter and Han Jassim, "The impact of the use of the slide show in the achievement of students of the Institute of Fine Arts for design subject", (unpublished master's letter), Faculty of Basic Education, University of Mustansiriyah, 2011.
- 28. Mansour, Ahmed Hamed, E-School in Learning Environments, 8th Annual Scientific Conference of the Egyptian Society of Education Technology, October 29-31, 2001.
- 29. Mozan, Ali Hussein, building a training program based on digital technology to develop the skills of students of the Department of Technical Education in the subject of planning and colors, master's letter, Faculty of Basic Education, 2013.
- 30. Okanya, A. ., Asogwa, J., & Onyedikachi, I. . . . (2021). Indoor Environmental Quality (IEQ) in Nigerian Tertiary Institutions: The Effect on Performance of Building Technology Lecturers. *Middle Eastern Journal of Research in Education and Social Sciences*, 2(1), 172-186. https://doi.org/10.47631/mejress.v2i1.143

- 31. Club, Noureddine Ahmed et al., Principles of Printing and Graphic Design, II, Arab Society Library for Publishing and Distribution, Amman, Jordan, 2011.
- 32. Nobler, Nathan, Dialogue of vision, translated by Fakhri Khalil, Dar al-Maamoun For Translation and Publishing, Baghdad, 1987.
- 33. Wasiti, Khalil Ibrahim, Development of designs and printing of locally produced banknotes, PhD thesis in typographical design philosophy, University of Baghdad, Faculty of Fine Arts, 1999.