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RESEARCH ARTICLE

The Effect of an Educational Program Based on Visual Discourse Psychology for Developing Skills in Painting Creation among Students of the Institute of Fine Arts

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ABSTRACT

The thesis consists of four chapters. The first chapter presents the problem of the research, its importance, objectives, limitations, hypotheses, and the terms used in the thesis. The second chapter is divided into two axes. The first axis consists of four topics, the first of which presents the educational program, while the second topic discusses the science of visual discourse psychology. The third topic includes visual discourse, and the fourth topic discusses visual creation. The second axis presents the most important previous studies. The third chapter presents the research methodology and procedures. The fourth chapter presents the most important results and conclusions, and in light of the above, the researcher proposes a set of recommendations and proposals. The aim of this research is to reveal the effect of an educational program based on visual discourse psychology for developing skills in painting creation among students of the Institute of Fine Arts. The research community consists of third-year students of the Department of Fine Arts at the Institute of Fine Arts in Baghdad Al-Karkh, totaling 100 students. The research sample is limited to third-year students of the Department of Fine Arts for boys at the Institute of Fine Arts in the morning study, with a sample size of 22 students, 11 of whom are in the experimental group and 11 in the control group. The researcher ensured the equality of the two groups in some variables that may have an impact on the dependent variable, such as age, father's educational level, and mother's educational level. The researcher chose the experimental design for the two groups with two tests. In light of the current research findings, the researcher recommended a set of recommendations, including-Directing institutes of fine arts, colleges, and art departments involved in teaching the subject of visual composition to adopt the teaching methodology developed in this research, which is based on the semiotics of visual discourse. This is due to the effectiveness shown in developing the skills of creating visual art among students.

INTRODUCTION

Modern educational institutions face significant challenges in meeting the needs of learners and providing innovative and effective educational programs that align with the rapid advancement of knowledge and technology. The rapid transformation in the scientific and technological field requires new educational curricula that focus on developing technological concepts and improving the skills necessary to interact with technology and information.

This study will address the recent changes in the field of education and its challenges, with a focus on exploring innovative teaching models and modern educational programs aimed at enhancing interactive and cooperative learning in advanced educational environments, as well as recommendations for the development of education and improvement of the dissemination of modern knowledge.

Educational programs play an important role in structuring learning objectives and content in a logical and systematic manner, preventing knowledge fragmentation and non-subjective activities, and ensuring balance. In addition, these programs help in documenting and facilitating continuous and final assessments, allowing them to identify and address learning weaknesses. Furthermore, they serve as a valuable tool in addressing random or disrupted education, and promoting a more organized and effective educational experience.

Teaching in a specific educational program greatly facilitates the learning process, increases its effectiveness, and allows teachers to evaluate the degree to which learners achieve lesson objectives. It also allows them to refine their teaching skills. At the same time, learners benefit from the program by developing their cognitive and skill-based abilities, increasing their academic performance level, and promoting social interaction between learners and teachers. Ultimately, the program aims to achieve the desired educational goals.

Based on this, the researcher decided to build a program to address weaknesses in the use of visual discourse and psychology in the subject of graphic design, and to examine its impact on the subject. Therefore, the problem of the current research is crystallized in the following question: What is the impact of an educational program based on the psychology of visual discourse in developing the skills of creating a graphic painting among students of the Institute of Fine Arts?

Definition of terms:

Impact: It is the result of a thing, and the impact can be attributed to the thing that has already been achieved as an accident over another thing (Jamil, 1971, p. 37).

The researcher procedurally defines impact as:

The change that occurs in the skills of creating a graphic painting among the research sample of the experimental group as a result of using the educational program according to the steps of the Nedham model as an input for their learning in the Institute of Fine Arts.

Educational program: It is an integrated system of educational content in which knowledge, processes, skills, experiences, activities, and teaching strategies are organized to develop scientific thinking skills among students in order to improve their level of achievement their ability to find appropriate solutions to a problem directed towards them was valued (Zayer and others, 2014, p.35).

The researcher defines the procedural educational program as a comprehensive teaching system of knowledge and skill processes offered by the researcher to teach the subject of "graphic design" in visual discourse semiotics according to the steps of the Nidham model, and its results are measured by the difference between cognitive and practical (pre and post) test scores, as well as a scale to measure the technical skills of students.

Cybernetics: It is the science that specializes in understanding the laws governing human life in terms of society (Abu Musleh, 2010, p.375).

The researcher defines cybernetics procedurally as:

The science that studies social phenomena and analyzes them scientifically and correctly, and is interested in understanding the developments and changes in human societies, in addition to studying individuals, groups, and institutions that make up society, which appear in the artistic

painting after the experimental group of students at the Institute of Fine Arts were exposed to the steps of the educational program according to the Nidham model.

Visual discourse: It is a specific language of shapes, lines, colors, formal elements, and signs, which constitutes a system of emotional communication loaded with symbols and indications that have their own components. It forms a structure in the recipient and is characterized by growth and transformation (Wadi, 2013, p.39).

The researcher defines visual discourse procedurally as:

An expression of symbolic language that conveys a specific issue or problem to deliver a message to the recipient, characterized by the selection of new formats characterized by creativity and innovation, as demonstrated by the research sample students in building the artistic painting at the Institute of Fine Arts."

SECONDLY: CHAPTER TWO: THE THEORETICAL ASPECT

Structuralism is one of the main theories in the social and human sciences, founded in the mid-twentieth century, focusing on the idea that social and cultural phenomena consist of specific meaningful elements that are analyzed and understood through the existing structures in society. It emphasizes the search for general patterns and hidden rules that regulate and shape human behavior and culture, relying on the belief that social reality cannot be understood through individuals alone, but requires an understanding of the social systems they live in. The theory's application extends to a wide range of fields and disciplines such as sociology and art, and it remains valuable in understanding social and cultural relationships, changes, and transformations.

The existence of this vast amount of information and experiences has led to significant difficulties in the processes of obtaining such information and experiences, which has disrupted the balance in achieving the goals and objectives of the learning and teaching process (Rajput, 1996:p.4).

Therefore, the idea of structuralism began to crystallize and gained widespread popularity in the educational field as it became the fundamental tool for improving learning environments and enhancing their outcomes. Its main focus was to stimulate learners and shape their cognitive structures, creating a state of cognitive balance between the old cognitive structures and the ones acquired later (Ruey k. & Anas R. 2008:p.4).

Due to the different perspectives on a single concept of constructivist theory, it was necessary to balance a set of definitions in order to reach a comprehensive concept that helps in clear understanding. The International Education Glossary defined it as "a vision in the theory of child learning and development, based on the child being active in building his thinking patterns, as a result of the interaction of his natural abilities with experience." This definition does not clarify all the constructivist features, but specifies a certain part of them. Upon closer examination of contemporary constructivist theorists, it is found that they did not provide an accurate, comprehensive, and concise definition of constructivism, but rather spoke at length about it. This is due to several reasons, including the fact that constructivism is a recent concept in the literature of educational and psychological sciences and requires a long time to be clearly understood. Also, the philosophical structures of the founders of this theory differ, as they have given sufficient freedom to those working in this field to interpret it according to their understanding and knowledge of it (Zaytoun & Zaytoun, 2003: p.17-p.18).

Nevertheless, some educators and researchers have put forward a number of definitions for constructivist theory, including: (Abu Odeh, 2006) defined it as an educational theory in which the learner forms his own knowledge either individually or collectively, based on his current knowledge and previous experiences, as the learner selects information, transforms it, and forms hypotheses as

making decisions, relying on the conceptual environment that enables him to do so, in the presence of the teacher facilitating the educational process (Abu Odeh, 2006: p.16-p.17).

The researcher believes that the process of learning and teaching within the framework of this theory leads to expanding the learner's perspectives and awareness in order to access knowledge and experiences, and how to confidently use that knowledge and experience. This makes the learner not just a recipient of ready-made knowledge and experiences, but a learner who creates and builds his decisions and how to use that knowledge and experience in life and educational situations. This means that he will use all the material and non-material resources around him to find the necessary solutions to the problems he may face. This was confirmed by (Qashta, 2008) that the constructivist philosophy relies on reaching the truths through the knowledge that the learner leads in shaping and acquiring the cognitive structure independently, relying on the previous experience he possesses, and then reaching integration between these two knowledges, making it easier for the learner to know and perceive the cognitive structure formed in him (Qashta, 2008: p.11.)

Historical basis of constructivist theory:

The idea of the constructivist theory is not a product of the current era, but there were many conceptions of that theory that emerged in the works of Socrates, Plato, and Aristotle through what they mentioned about shaping individual knowledge, as well as Saint Augustine, who sees that the sensory experience that the individual undergoes reveals truths to people (Growther, 1999: p.187).

Then came the period of skepticism about the sufficiency of the senses, and the extent to which the mind can reach certainty in contrast to the nature of things. This period was led by Descartes and Spinoza, followed by the period of philosophers who believed that the mind forms knowledge based on its perception, and that these mental images are consistent with experience, followed by the period led by Darwin the theory was built on the basis of adaptation between the individual and the environment in which they live. Both William James, George Samel, and John Dewey confirmed that knowledge is aimed at serving the individual's requirements in life. However, the constructivism became clearly evident in the works and research of both researchers Jean Piaget and Vone Glasersfeld, who laid the precise scientific foundation for the theory and its current form (Zaytoun, 2003,p. 27-p.30).

The researcher believes that constructivism theory focuses on individuals' internal structure and how it affects their learning and development. It should be noted that this theory has evolved and been modified and expanded over time by many other scientists and researchers. The constructivism theory is considered a significant contribution to understanding the learning process and individual development.

The pillars of the constructivism theory include the following:

1. Knowledge construction is not acquired ready-made from the teacher but is self-built through the interaction of the individual's senses with the external environment and then transferred to their nervous system to deal with it, influenced by the individual's previous experiences.

2. Meaning construction in the learner is a dynamic process that requires certain mental performances to reach the meaning. It may leave a positive impression on the learner if the meaning is appropriate to their experiences, or it may leave a negative impression if it does not fit their experiences, which leads the individual's mind to intensive activity to create a state of balance within them in two ways:

A. By dealing with the new experience and absorbing it, they acquire meaningful learning.

B. By not dealing with the new experience entirely, no learning occurs. Resistance to change in the previous cognitive environment by adhering to the experiences that the learner possesses, even if they are incorrect (almusawi, 2015:p.43-p.46).

The researcher adds to the aforementioned that active learning and social interaction are considered an essential part of constructivist theory, where constructivist observers encourage active participation of learners in the learning process and interaction with the teacher and others. This can be manifested in discussion, collaboration, and learning through teamwork, which is considered one of the basic pillars as a basis for understanding constructivist theory and its applications.

Nedham's Constructivist Model

According to Zamli (2010) as cited by Hashim & Kasbolah (2012), this model was proposed by the researcher Richard Nedham in the UK. Through the program implemented, students learned within the scientific project, aiming to enhance learners' abilities to understand scientific concepts, motivate them to actively participate in the classroom, and suggestively engage them. Nedham proposed this model based on the principles of constructivist theory.

Al-Baali (2012) perceives that this model is one of the models applying the principles and concepts of constructivist theory. It assists learners in forming new concepts and knowledge, linking them to previous ones through five consecutive stages: guidance, idea generation, idea reconstruction, idea application, and reflection. This process allows them to develop higher-order thinking skills such as problem-solving, prediction, among others, which is a crucial goal in current learning and teaching processes.

The Role of the Teacher in Nedham's Constructivist Model:

The teacher plays a crucial role in this model as the guide and facilitator of the educational process, with the following responsibilities:

1. The teacher is responsible for creating a suitable learning environment for students.

2. Motivating and encouraging students before engaging in the learning process.

3. The teacher should use all possible visual aids, illustrations, or explanatory videos to present topics accurately to learners (Mohamad, 2012:p.10-p.11).

The learner's role in this model:

1. The learner is active and engaged in the process of learning and teaching.

2. They can construct meaning through the process of acquiring knowledge and experiences in an active classroom environment.

3. The learner's ease of integration in the model.

4. The learner has the ability to explore, research, and investigate through the presented topics (Abd Halim & Kamarudin, 2010:p.3).

Educational Programs:

Educational programs are one of the main elements of the educational process that need constant updating and development to help achieve the quality of education on one hand, and to meet the needs of society on the other hand. Educational programs, at all stages of education, reflect the state of society and the level of scientific progress at the current age. At the beginning of the twenty-first century, education specialists in universities and schools unanimously agreed on the necessity for educational programs to meet the advancements in information and communication technology.

Therefore, higher education had to start developing its educational curricula and move from knowledge transfer to knowledge creation.

The Importance of Educational Programs:

Building an educational program is one of the most important stages of the educational process. The success of any educational program depends on the precise foundation on which it is built. When organizing an educational program, it is essential to first identify the main educational objectives directly related to the subject matter. Through these objectives, different fields of human behavior are determined, which are then translated into specific goals that serve the general objectives (Hashem & Al-Mandalawi, 2016).

Building educational programs aims to provide teachers with the necessary skills to keep up with the developments and innovations of the twenty-first century, and to expand their horizons in order to develop students' capabilities and enhance the educational process to the best levels (Al-Ziyadi, 2007, p. 547).

The researcher believes that the construction of educational programs varies in their comprehensiveness and the required resources. It could be broad, including designing a course or an entire curriculum, and that program design plays a crucial role in giving dynamics to all elements of the educational program, a self-content educational system that helps students achieve educational goals according to their abilities, needs, and interests, based on a set of guidelines and directions that should be followed step by step, ensuring at the end of the program that the student has achieved those goals (Al-Skarneh, 2011).

Al-Skarneh (2011) believes that choosing the components of educational programs should be done accurately, in light of their suitability for students' needs, the nature of the subject matter, the educational, environmental, material, and time resources, as well as the stage of preparing the educational content of the program according to its educational objectives in order to achieve these goals (Al-Skarneh, 2011, p. 107-108).

THIRDLY, CHAPTER THREE / RESEARCH PROCEDURES

Since the Institute of Fine Arts is concerned with providing students with the fundamentals of arts cognitively and skillfully, the current research community consisted of third-grade students in the morning study at the Institute of Fine Arts, Department of Visual Arts (Drawing), affiliated with the Institutes of Fine Arts in Baghdad / Al-Karkh, totaling (100) students distributed among (4) art institutes. The researcher obtained this information from the institutes' administration.

The current research sample consisted of third-grade students (morning study) at the Institute of Fine Arts for Boys in Baghdad for the academic year (2023-2024), totaling (22) students distributed in two classrooms. The researcher chose, through random selection using a lottery method, Classroom (2) to represent the control group, where students study the same content in the usual manner without exposure to the independent variable, and chose Classroom (1) to represent the experimental group, whose students are exposed to the independent variable (the educational program). The number of students in the first and second classrooms was (22) students, with (11) students in Classroom (1) and (11) students in Classroom (2), without excluding any students from both groups.

Educational Objectives:

Educational objectives in the educational program are the guiding axes through which the expected behavior or performance of the learner is described after the learning process, or the expected outcome of the learner after going through a specific educational learning experience. Therefore, the

researcher specified educational objectives distributed according to the study subject, as shown in Table 1.

t	The topic	Educational goals
1	Pictorial construction	Introducing learners to pictorial construction (understandable, principles, types)
2	Pictorial construction systems	Graphical construction systems
3	Elements of pictorial construction	Learners apply the elements of pictorial construction
4	Foundations of pictorial construction	Learners apply the foundations of pictorial construction
5	Features of the artwork	Introducing learners to the features of technical work, its requirements, and the stages of its implementation.
6	How to create a work of art	Providing learners with how to create a hierarchical, horizontal, vertical and radial artistic work that takes into account the principles and elements studied.

Formulation of behavioral objectives: Behavioral objectives refer to the expected educational outcomes of learners after the teaching process and can be observed and measured by the teacher (Al-Khazraji, 2011: 61). Formulating behavioral objectives helps in organizing the teaching planning process, guiding it, and in the evaluation process (Atallah, 2010: p.75.)

After reviewing the content of the visual composition subject for the third stage at the Institute of Fine Arts, the current research formulated (43) behavioral objectives according to the seven levels (perception, preparation, guided response, mechanism or habituation, complex overt response, adaptation, and origination) from Simpson's classification of the skill domain.

Educational program validation:

To ensure the validity of the educational program, all its teaching units were presented to a group of experts to demonstrate the extent to which the content of this program achieves its objectives. The percentage of agreement of the experts after the researcher took into account the modifications to its overall form was (100%), and then it was applied to the primary research sample and all its requirements were implemented.

1. Achievement test

The current research requires the preparation of a tool to measure the dependent variable, which is the development of skills in creating visual art, and the following are the procedures and steps for preparing this tool:

A. Determining the number of test items:

The researcher consulted with a number of professors at the Institute of Fine Arts to determine the number of test items for the achievement test, and it was agreed that (35) test items for the six axes included in the research are suitable for the research sample. In order to include the axes in the research with test items, a test map (specification table) was built.

It is a two-dimensional table that works to link the content and the objectives to be achieved at their different levels and fields (Al-Hila: 2008.407). Therefore, the researcher prepared a specification

table according to Bloom's levels and a specification table according to Simpson's levels, according to the following steps:

A- Determine the relative weight for each of the topics (creating the visual, visual creation systems, artistic work characteristics, visual creation elements, visual creation principles, and how to create artwork) from the visual creation subject scheduled for the third stage at the Institute of Fine Arts. In light of the number of pages for each topic, the content weight for each topic was extracted as follows:

Relative weight of the topic = (number of pages for each topic)/ (total content study number) × 100

B- Determine the weight of the behavioral objectives for each topic and for each level of the three Bloom's levels (knowledge-comprehension-application) and the seven Simpson's levels (perception, set, guided response, mechanism or habituation, complex overt response, adaptation or adjustment, authenticity), as follows:

Weight of objectives at each level = (level objectives number)/ (total objectives) × 100

C- Calculate the number of questions for each cell in the specification table as follows:

Number of questions for each unit = objective level percentage× content percentage× total number of questions (Al-Dulaimi and Adnan, 2005: p.30).

FOURTHLY: CHAPTER FOUR: PRESENTATION AND DISCUSSION OF RESULTS

The first hypothesis: There are no statistically significant differences at the significance level (0.05) between the average scores of the experimental group members in the pre-test and post-test on the test of creating visual art skills. The researcher applied the achievement test to the research sample after implementing the program according to the visual discourse physiology in the pictorial composition subject. The Wilcoxon test was used to test the validity of this assumption, and the calculated value was found to be (zero), which is smaller than the critical value of (10) at the significance level (0.05). This indicates the presence of statistically significant differences in favor of the post-test results, thus rejecting the null hypothesis and accepting the alternative hypothesis. *The critical Wilcoxon value = (10) at the significance level of 0.05 (Hassan, 2016: p.573).

The second hypothesis: There are no statistically significant differences at the significance level (0.05) between the average ranks of the experimental group members (visual discourse physiology) and the control group in the post-test on the scale of creating visual art skills. The researcher used the Mann-Whitney test for the experimental (visual discourse physiology) and control groups in the post-test, and the calculated Mann-Whitney (U) value for the small samples was found to be (zero), which is smaller than the critical value (30) at the significance level (0.05), indicating statistically significant differences in favor of the experimental group after the experiment. *The critical Mann-Whitney value = (30) at the significance level of 0.05 (Ghanem, 2008: p.604).

The third hypothesis: There are no statistically significant differences at the significance level (0.05) between the average ranks of the experimental and control group members in the post-test on the skill assessment tool.

The researcher used the Mann-Whitney test for the experimental and control groups in the post-test of the skill tool. The calculated Mann-Whitney (U) value for the small samples was found to be (0.500), which is smaller than the tabulated value (30) at a significance level of (0.05). This indicates statistically significant differences in favor of the experimental group after the experiment.

The tabulated Mann-Whitney value is (30) at a significance level of 0.05 (Ghanem, 2008: p.604).

Hypothesis Four: There are no statistically significant differences at a significance level of (0.05) in the effect size of the independent variable (the educational program based on the visual discourse

secession) in developing the skills of creating visual compositions among the students of the Institute of Fine Arts.

To determine the effect size of the independent variable on the dependent variable, the researcher used Cohen's equation to calculate the effect size for the pre-test and post-test of the experimental group. The researcher also used the eta squared equation to calculate the effect size for the post-test of both the experimental and control groups as follows:

Effect size using Cohen's equation is the difference between the means of the pre-test and post-test for the experimental group for the variable of creating visual compositions skills divided by the weighted standard deviation. Knowing the effect size helps us determine the relative effect of the educational program. Therefore, Cohen's equation was applied, and there are criteria for the effect size: small effect size (0.20), medium effect size (0.50), and large effect size (0.80).

The effect size after applying Cohen's equation was (8.8060), indicating a large effect size for the educational program in developing the skills of creating visual compositions for the experimental group.

The effect size using the effect size by dividing the calculated t-value square by the t-value square plus the degrees of freedom helps us determine the relative effect size of the educational program. After extracting the eta squared value, we compare it to the following standards: small effect: 0.01, medium effect: 0.06, high effect: 0.14. The mean, standard deviation, and calculated t-value were extracted between the experimental and control groups in the test of visual art composition skills. The effect size reached after applying the eta equation (0.84625), making the effect size for the educational program according to the visual discourse physiology have a high impact on the experimental group.

RECOMMENDATIONS

In light of the research findings, the following recommendations can be formulated:

1. Directing fine arts institutes, colleges, and art departments involved in teaching visual composition to adopt the teaching method developed in this research, which is based on the semiotics of visual discourse. This is due to its effectiveness in developing students' skills in creating visual artworks.

2. Working on preparing specialized studios and providing all the necessary resources and materials to implement the developed curricula in the current research, including appropriate teaching aids and art materials.

3. Utilizing the content of the curricula prepared in this research for teaching visual composition, while relying on cognitive achievement tests and a performance evaluation form to assess students' levels before and after teaching, and employing them in producing students' artworks.

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