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THE EFFECT OF THE KOLB MODEL ON DEVELOPING THE TECHNICAL COMPUTER DESIGN SKILLS OF STUDENTS OF THE DEPARTMENT OF FAMILY EDUCATION AND ART PROFESSIONS

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Abstract:

The aims of research: The research aims to identify the impact of the Kolb model in the development of computer design skills among students in the Department of Family Education and Technical Professions.

Sample: The researcher sought, intentionally, the sample and random distribution, students of the Department of Family Education and Technical Professions /Faculty of the Basic Education/University of Mustansiriyah to represent the control group in which students study technical design by computer in the usual way (lecture and discussion), and the experimental group that exposed its students to the independent variable (Anmog Kolb) when teaching technical design by computer.

Results: The results of the research resulted in the superiority of the students of the experimental group who studied according to the model of Kolb, over the students of the control group who studied according to the usual method in the development of the material of technical design by computer.

Conclusions: The Kolb model has proven its effectiveness in developing students' skills (cognitive and skills) in the subject of computer technical design.

Introduction:

Education plays a very important role in determining the behavior of the individual, as it leads to many new manifestations and behavioral skills such as reading and writing, ways of thinking, solving problems, learning the arts and using technology, and helping human beings to modify their behavioral methods, making it sophisticated and stable. Human beings learn the methods of dealing with things and individuals, so that they can live safely, as a result of experience, practice, training, and education to transform any transmission of a person's behavior from one case to another not knowing the thing to his learning, and the model of Kolb (Kolb, 1984) is a well-known model in experimental learning, as Kolb presented his model as his famous course of experimental learning or what is known as the natural learning cycle and pointed out the existence of two basic factors contributing to the educational experience.

Understanding information (how do we perceive? feel and think) where individuals perceive new information in infinite ways ranging from sensory experience to the formation of abstract concepts.Sensory experiences mean sensory perception through personal interaction by employing senses and emotions, while the formation of concepts means translating sensory experiences or experiences into concepts, ideas, and language and representing the abstract entrance to the learning process, and this interaction between physical sensation through experimentation and abstract thinking to form concepts is essential in the learning process. Information processing (how to treat? meditate and do): Information is processed by people in infinite ways ranging from meditation and action or the application of ideas to the outside world. Meditation means transforming knowledge by rebuilding, arranging, and thinking about it.

As for the act means applying the ideas and information learned by the learner from the outside world through the verb and dealing with this information, and that this interaction between meditation and action is very important because it provides the motivation to address internal ideas, as it encourages the learner to test these ideas in the real world, and employ what has been learned in other new situations, and skill as a concept, means that it is practiced by the individual as a means during the function of performance, and has information in a special field of knowledge, and has its origins in addition to It is a practice and requires in whom it exercises, a lot of abilities and abilities, which require the ability to accomplish a work accurately. The first is to be directed towards achieving a particular goal or purpose. Therefore, the art of contemporary design seeks to organize the pillars of the artistic achievement according to the data of the human experimental field and the breadth of its material needs, the multiplicity of its fields of industrial, productive, and marketing in addition to communication and persuasion. What is new is that technology has become dominant and dominant in the values and pillars of the artwork, because the intellectual approaches have led to the development of technical development that has advanced to contemporary stages.

Contemporary design no longer accommodates only creative ideas and innovations that are in line with the accelerated development of what is produced by the human mind, and digital design is one of the most important branches of art that rely on computers to convey the visual message to recipients, it is a wide term as it includes achievements, practices and applied arts that are used through digital technology through highly professional methods, in order to prove the character of design creativity, especially as computers have integrated with the art of contemporary design and have become digital designs that have transformed the nature of the contemporary design. Classic computer art into more subtle, professional, and interactive images than ever before. Through it, the recipient enjoys wonderful visual scenes that the recipient can imagine and interact with to turn that process into an interactive dialogue with the computer screen, and although the technical achievement was produced by a manual and traditional work, computer technology as a contemporary technology produced achievements completely different from the traditional through subject to a digital mechanism that creates design ideas much human indescribable as the integration of the idea with digital as a transformation stands with the interest of the contemporary design technical achievement, especially as the accelerated development adopted digital penetration In its applications and functional approaches where visual design production and image therapies, this creative and pragmatic field has multiplied its descriptions and has won the admiration of many designer artists and recipients and made computer systems the actual basis for the formation of images and drawings. Digital design has played a key role in the management of contemporary social life and promised an important element in advertising, advertising, and promotion topics, as well as the design, production, and contemporary means of communication in all forms, especially since the characteristic of computer designs is speed and accuracy in performance when designing is produced.

Research problem:

Based on the foregoing, and through the researcher's knowledge of the reality of teaching the subject through continuous communication with some teachers of the subject, the researcher noted that some teachers who teach the subject use the lecture method, which has become a regular method, and this, in turn, reflected the skill of students and their progress in the art of design by computer 0, which was confirmed by many studies and research that dealt with learning and study strategies in Iraq as well as the poor levels of achievement in the educational output by about a year and design skills, especially due to the poor practice of students and their mastery. Computer technical design skills, teachers do not take into account individual differences among students and this happens under traditional methods followed in teaching and only to present the scientific subject in a theoretical form that is characterized by preservation and remembering only without paying attention to the applied aspects of the material, which increases the difficulty of students, and that the problem becomes more acute when we know that there are many students and in many technical subjects including the subject (technical design computer) apply incorrect strategies in skill learning and then turn it into wrong habits in Learning, which leads to the deterioration of the level of students and their achievement in mastering the technical skills, so the student needs a mentor and mentor using appropriate and good strategies, and on the above the researcher felt that the

process of employing the model Kolb may contribute to the development of technical design skills by computer, hence the researcher chose to choose this model in his experimentation as a way to teach the skills of technical design computer for students of the Department of Family Education and **technical professions and the effect of his use so the researcher decided to identify her problem with the following question :**

- What is the impact of using the Kolb model in the development of computer technical design skills in the students of the Department of Family Education and Technical Professions?

Research Importance:

The importance of research and the need for it:

The importance of research shows the importance of the problem referred to above and can benefit from the current research in the following areas:

1- know an experimental educational pattern for the Model (Kolb) that balances the difference of mental, technical and skill abilities of students to acquire them in computer technical design skills.
2- This study may benefit those involved in the preparation of curricula and textbooks so that they will insist on including subjects and activities commensurate with the different learning methods of students, and provoke their motivational orientation towards achievement.
3- Several factors, most notably demanding positive results better for the process of technical and skill learning and making its products suitable for the requirements of society, in order to increase the number of students, and the modern scientific orientation in resisting the traditional methods adopted in education on the one hand, and the resulting progress in the study of different sciences, on the other hand, has called for thinking about finding strategies, methods, and methods of education in line with scientific developments and modern technologies.

Search Objective:

The existing research objects to know:

The impact of the Kolb model in the development of technical design skills by computers among students of the Department of Family Education and technical professions.

For the purpose of verifying the purpose of the research, the following hypotheses were formulated:

1. There are no statistically significant differences at the level of significance (0.05) between the average degrees requested by the experimental group who study the subject of technical design by computer using the (Kolb model) and the control group studying the same material using the standard method in the cognitive remote test.
2. There are no statistically significant differences at the level of significance (0.05) between the average degrees requested by the experimental group who design a logo using the Kolb model and the control group who perform the same design using (the usual method) in the remote skill test.

3. There are no statistically significant differences at the level of significance (0.05) between the average degrees requested by the experimental group who design a book cover using the Kolb model and the control group who design itself using the "standard method" in the distance skill test.

Search Procedures:

Experimental Design: In this research, the researcher used the partially adjusted experimental design of the experimental and control groups with tribal and dimensional testing.

The research community and its eye:

- The researcher selected the research community from the Department of Family Education and Technical Professions in the Faculty of Basic Education Phase IV, which numbers (53) and is distributed in four classes according to the statistics of the year (2020-2021).

Table (1): Research Community for the Academic Year (2020-2021)

University	Male	Female	Total
Al-Mustasiriyah	4	49	53

The researcher chose the sample of her basic research from the students of the University of Mustansiriyah / Faculty of Basic Education / Department of Family Education and Technical Professions since there is no corresponding section in the rest of the colleges and they are students of the fourth stage of the morning study where the sample of research reached (21) students, students of the fourth stage, in the department of family education and professions Technical in the Faculty of Basic Education, where they were divided into two groups, the first experimental, which numbered 10 students, including (8) students, (2) students, and the second officer, the number of members (11) students and students, including (10) students and (1) students

Parity between the experimental and control group

In order to ensure the integrity of the experimental design adopted by the researcher in the current research, it is necessary to equalize the two groups (T, Z) in a number of variables that can affect the internal integrity of the adopted design, namely variables (age, previous experience, and general intelligence), and in the light of the results achieved, we note that the two groups stand on a single starting line.

Search Tools

One of the requirements to ascertain the impact of the Kolb model in the development of technical design skills in computers must be to prepare the necessary tests and measurements, so the researcher prepared two tools: the first to measure the cognitive achievement in the subject of technical design in the computer in students (research sample), and the second to measure the skill achievement in the subject of technical design in the computer.

Statistical means:

The researcher used a number of statistical methods to process the data and information obtained from the research sample and show its findings, paragraph recognition coefficient, paragraph difficulty factor, equation of the effectiveness of the wrong alternatives, man-whitney test, vakronbach equation, Kai equation.

Results:

The results of the first hypothesis: to validate the hypothesis, the researcher extracted the average grades of the experimental group (15.75) with a total of grades (157.50), while the average rank of the control group reached (6.68) with a total ranks (73.50), and reached the value of The calculated Whitney Man (7,500), which is smaller than the 26-year-old Man Whitney's scheduled value, and at a level of significance (05.0), indicates a statistically significant difference between the average grades of the two research groups in the distance attainment test and in favor of the experimental group, Thus rejecting the first zero hypotheses that there is no statistically significant difference between the average grades of the two research groups in the dimensional attainment test, **and table (2) explains this:**

Table (2): Man & Whitney test results for two separate samples of the research groups in the cognitive attainment test.

Total	**Number**	**SMA**	**Average ranks**	**Total ranks**	**The value is Man Whitney**		**Significance at (0.05) level**
					Calculated	Tabular	
Experimental	10	19.200	15.75	157.50	7.500	26	Statistical function
Control	11	15.364	6.68	73.50			

The results of the second hypothesis: to verify the validity of the hypothesis, the researcher extracted the average grades of the experimental group (15.85) with a total ranks (158.50), while the average rank of the control group reached (6.59) with a total ranks (72.50), and reached the value of The calculated Whitney Man (6,500) is smaller than the 26-year-old Man Whitney's scheduled value and at a level of significance (05.0) and this indicates a statistically significant difference between the average grades of the two research groups in the remote logo design skill test and in favor of the experimental group. Thus, rejecting the second zero hypothesis that there is no statistically significant difference between the average grades of the two research groups in the dimensional logo design skill test, **and table (3) explains this**:

Table (3): Man & Whitney test results for two separate samples of the research groups in the remote logo design skill test

Total	Number	SMA	Average ranks	Total ranks	The value is Man Whitney		Significance at (0.05) level
					Calculated	Tabular	
Experimental	10	66.000	15.85	158.50	6.500	26	Statistical function
Control	11	54.455	6.59	72.50			

The results of the third hypothesis: to verify the validity of the hypothesis, the researcher extracted the average grades of the experimental group (16.25) with a total ranks (162.50), while the average rank of the control group reached (6.23) with a total ranks (68.50), and reached the value of The calculated Whitney Man (2,500) is smaller than The Man Whitney's table value of 26, and at a level of significance (05.0), this indicates a statistically significant difference between the average grades of the two research groups in the remote book casing design skill test and for the experimental group. Thus, rejecting the third zero hypothesis that there is no statistically significant difference between the average grades of the two research groups in the remote book cover design skill test**, and table (4) explains this:**

Table (4): Man & Whitney test results for two separate samples of the research groups in the remote book cover design skill test.

Total	Number	SMA	Average ranks	Total ranks	The value is Man Whitney		Significance at (0.05) level
					Calculated	Tabular	
Experimental	10	48.000	16.25	162.50	2.500	26	Statistical function
Control	11	39.545	6.23	68.50			

Second: Interpretation of the results:

By presenting the results of the hypotheses, a clear and statistically significant superiority appeared at the level of indication (0.05) for the students of the experimental group who studied using the Kolb model on the group of officers **who studied in the usual way and the researcher believes that this superiority is due to:**

1- The subjects studied during the experiment are more suitable for teaching using the Kolb model than the traditional method.
2- The effectiveness of the Kolb model by making students in a positive attitude interacting with the lesson depending on the variety of answers and their complexity and abundance, instead of the negative attitude in which it depends on the teacher

because the material of technical design in the computer is a skilled material more than knowledgeable.

3- The Kolb model has worked to enhance students' self-confidence.
4- The Kolb model is one of the modern teaching models that were not in the experience of the students, which attracted them to teach and increased the desire to learn them, and as a result increased the level.
    4. The Kolb model has not been used in the teaching of computer technical design material previously.
5- The effectiveness of the Coroll program in the work of integrated designs and ease of use.

Conclusions:

Based on the results of the study, the researcher concluded the following:

1- There is a need for modern teaching models and methods for university students, especially the fourth.
2- Using the Kolb model of teaching helps the teacher, as he is able to prepare fortified plans (cognitively, educationally, applied, orthotic).
3- The Kolb model contributes to the acquisition of skills.
4- The application of the Kolb model helps to raise the level of the desired trend towards the material of technical design by computer.
5- The Coroll program has proven its effectiveness in making poster designs and book covers.

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