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Research Article

The effect of cognitive training indevelopingcritical thinking among students of theDepartment of Art Education on the subject of Criticism and analysis of artwork.

Dr.Fatima M. Abdullah[1], Dr.Montaha T. Hassan[2], Rawaa M. Ibrahim[3]

Abstract

The aim of the research is to know the effect of the cognitive training strategy in developing critical thinking among students of the Department of Art Education in the subject of criticism and analysis of artwork, Technical/College of Basic Education/Al-Mustansiriya University with (168) students, and the researcher chose the random method (1) to represent the experimental group (2) to represent the control group with (30) students for each group, and to reach the results of the research, the researcher used a set of statistical methods, including: T-test For two independent samples, the equation of difficulty, discrimination, effectiveness of false alternatives, and Kweder-Richardson20.

- The most important results of the research showed that the size of the effect left by teaching the cognitive training strategy among the students of the experimental group was very large in the field of critical thinking, and it represents a very large indicator indicating the effectiveness of this strategy in developing their critical thinking skills compared to their peers in the control group.

The researcher recommended several recommendations and suggestions, including:
1- Emphasis on cognitive training skills, and skills that lead to enjoyment of learning, which includes metacognitive skills.
2- The effect of the cognitive training strategy on developing critical thinking skills among the students of the Department of Art Education in the subject of Artistic Appreciation.
Key words: *cognitive training strategy*, *Critical thinking*, *Criticism and analysis of artwork.*

Chapter one
Research problem

Education is a means of education in achieving its goals and their source in building the human personality, as education works to strike a balance between the needs of the educated individual and the requirements of the comprehensive development of his society, which puts curriculum planners, educational designers and implementers in great challenges represented in setting general and private educational goals and identifying the characteristics, needs and capabilities of students. Analyzing educational content, constructing spoken tests, developing education strategies, and

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investing modern technology developments to meet the needs of the individual and society, in a manner consistent with the spirit of the age, and with what educational and psychological studies have brought (Al-Hilah, 1998:13).

In addition to facing academic and technical problems and other complexities of the times, the purpose of education in this regard is not merely to teach ready-made information; Rather, it works to provide the learner with methods of thinking and solving problems critically, to be able to produce knowledge and not just save and consume it, and this is the way of creativity and creators (Hanoura, 1999:42).

Through the exploratory study prepared by the researcher (Appendix 1), the researcher found that there is a problem that is summed up in the weakness of the abilities and skills of the students of the Department of Art Education in analyzing and criticizing artistic works, despite the presence of criticism and business analysis in the department's curricula. This problem is the adoption of classical methods in teaching this subject, and based on what was mentioned, the researcher believes that adopting one of the modern strategies in teaching may lead to the development of critical thinking and raise students' abilities to analyze and criticize artistic works, as the method of cognitive training . Cognitive training also focuses on the trainer and the teacher working within a new cognitive perspective as partners who respect each other's contributions away from the traditional ready-made recipes that the teacher provides to improve his academic performance. (Nadia Al-Afoun, 2009:45)

Based on the foregoing, the problem of the current research can be summarized in the following question:

What is the impact of the cognitive training strategy on developing critical thinking among students of the Department of Art Education in the subject of criticism and business analysis?

Research importance

The importance of the current research can be summarized in the following points:

1. The need for the continuous teaching process to search for modern methods and methods to develop them, so the importance of using the cognitive training strategy lies as one of the modern teaching strategies that focus on developing thinking skills in general, including critical thinking.

2. Through the survey of previous studies, the researcher did not find a study that dealt with revealing the relationship between cognitive training and critical thinking, so this research is an attempt to establish scientific research in this field.

3. The current research acquires its importance from the importance of critical thinking as it is an important, complementary and accompanying axis of the technical lessons, including criticism and analysis for the student and to achieve the proper growth of his mental, emotional and spiritual aspects.

Search objective

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Disclosing the impact of the cognitive training strategy on developing critical thinking among students of the Department of Art Education in the subject of criticism and business analysis; Through the following assumptions:-

1. There are no statistically significant hypotheses at the level of significance (0.05) between the average scores of the two groups (experimental - control) who study according to the cognitive training strategy plan, and the control group who studies according to the usual method for the items of the cognitive achievement test afterwards.

2. There are no statistically significant hypotheses at the significance level (0.05) between the average scores of the students of the two groups (experimental - control) about their answers to the test items of critical thinking dimensionally.

Search limits

• Spatial boundaries: Al-Mustansiriya University/ College of Basic Education/ Art Education Department.

• Time limits: the academic year 2020/2021

• Human limits: students of the third stage / morning study

Define terms

1- The researcher defined the procedural effect as: the ability of the independent variable (cognitive training strategy) to develop and make a change in the dependent variable (critical thinking) and achieve a positive result.

2- The researcher defined the procedural cognitive training strategy as: a set of procedures that use cognitive skills, namely, the planning session, the lesson session, and the meditation session, in order to develop the ability of the recipient (the learner) to interpret, analyze and criticize artworks within the levels of critical thinking.

3- The researcher defined procedural critical thinking as: the ability to provoke the recipient through the analysis and criticism of artworks within modern criticism curricula, through the contemplative ability to infer, evaluate arguments, know hypotheses, and interpret artworks.

4- The researcher defined artistic criticism procedurally as: the ability of the recipient to analyze artworks and judge them according to what his previous experience imposes on the trends of modernity and postmodernity and within the modern and postmodern critical curricula.

Chapter II

Theoretical framework

The first topic: cognitive training

Cognitive training

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When talking about cognitive training, this makes us go back to the origin of the process of learning, acquiring knowledge, building mental imagery, planning, meditation, practicing self-direction and finding solutions.

Strategies for metacognitive thinking

Metacognitive thinking strategies are described as a set of actions taken by the learner with the aim of achieving metacognitive requirements, including: knowledge of the nature of learning, its processes and objectives, awareness of the procedures and activities that should be carried out, and directing the process of self-control to achieve certain results. (Ali, 2004: 211).

And they are unanimously agreed that the learner's use of meta-cognitive strategies in different learning situations helps to provide a generalizing environment that inspires thinking.

The concept of cognitive training

The cognitive perspective has helped in the emergence of strategies and entrances to cognitive training, and was used in the development of higher thinking skills and abilities, and was used in directing and improving self and institutional performance. (Costa and Garmston, 2009: 34).

Cognitive training is a complex model for talking about meditative planning, or solving problems in an educational or training situation, and thus it is a developmental, contemplative, non-evaluative model that emerged from a mixture of psychological, educational, cognitive and social orientations. The trainee through the development of his intellectual functions. (Costa and Garmston, 2009: 60).

Through the foregoing, the researcher believes that cognitive training works to refine and modify the learner's meanings, abilities and behaviors, with the associated good results in performance, but also to refine the learner's ability to self-mediation and to become more effective in continuing with self-direction.

Justifications for using the cognitive training strategy

1- Cognitive training improves learners' intellectual energies, and this in turn achieves greater intellectual achievements for the student.

2- Cognitive training provides systematic feedback, and feedback is a source of self-renewal and performance monitoring.

3- Cognitive training develops positive relationships between individuals, which are essential for achieving harmony between the cultures of the school community, and essential for the formation of productive institutions.

4- Cognitive training supports teacher self-renewal programs. (Costa and Garmston, 2009: 36)

The relationship between cognitive training and critical thinking skills

Learning critical thinking skills emphasizes the need for students to deal with different situations, and critical thinking skills can only be acquired properly and appropriately through training, practice and education, and students must be trained to apply these skills in their academic

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studies, their daily problems, and the difficult choices that must be faced. Through the rapid technological explosion of knowledge, critical thinking includes raising questions and questioning, where students learn to raise good questions in order to advance in the field of learning and knowledge.

Teaching critical thinking must usually be designed to understand the relationship between language and logic, so that the cognitive field remains alive and renewed, which leads to the mastery of skills of analysis and criticism, and the defense of issues through clear expressions of knowledge and beliefs (Al Azmah, 2006: 45).

The relationship between knowledge and training on it, and between critical thinking and its skills, is an interactive and reciprocal relationship, in that the analysis of cognitive training and the strengthening of this process take place through the trend towards critical thinking, and the individual's analysis of his thinking processes and awareness of knowledge and skills releases the individual's critical energies. (Obeid, 1998: 307).

When the teacher asks his students to describe what is in their minds, it helps them to develop cognitive awareness and the cognitive processes they perform, which is thus a development of thinking abilities, including critical thinking.

Through informing the researcher during her research on studies and literature, she found that cognitive training processes have a major and basic role in developing thinking skills in general, and critical thinking skills in particular, and that the relationship between cognitive training and thinking, It is a direct relationship, the more cognitive training processes, the greater the ability to think critically, and vice versa.

The second topic: critical thinking

Thinking and its types

Thinking is a feature that characterizes man, his generosity and goodness with it, the Almighty, and he distinguished him from the rest of the creatures, as he made his mind an orbit of harmony and bear the burdens of responsibility, and urged humans to think about many of the heavenly religions, and Islam is one of these religions. The human being in the fullness of what it contains of functions with all their characteristics {Indeed, in the creation of the heavens and the earth and the alternation of night and day there are signs for those who have understanding, so that they may reflect} (Al-Omran - verse 191).

Since thinking is a complex type of human behavior, "its arrangement comes at the highest levels of mental activity, as it is a cognitive process characterized by the use of symbols to substitute for things, people and accidents" (Adas and Tawfiq, 1998: 44).

There are different views among scholars, researchers and educators about the concept of thinking, as there is no comprehensive concept for it. Some see it as a "high-end cognitive mental process that involves reorganizing the elements of the problem situation in a new way that allows the realization of relationships or problem solving, and includes cognitive, cognitive and intellectual procedure And others, as well as some mental and cognitive skills such as classification, deduction, analysis, synthesis, comparison, generalization, and others." (Abu Al-Maati, 2005: 378).

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The researcher believes that thinking is a mental and cognitive process, and through mental interaction such as attention, perception, remembering and others, the learner develops and acquires experiences and skills aimed at improving the cognitive structure and reaching new assumptions and expectations.

In view of the wide scope of thinking in general and critical thinking in particular, the researcher found that there is an urgent need to distinguish this style of thinking. Sources and references indicate the existence of multiple patterns and forms of thinking. , in order to facilitate its study and to distinguish the mechanisms of each of these patterns, which are divided as follows:

1- "Critical thinking: is to present the credibility of phenomena, and to arrive at logical judgments through specific criteria and rules, in order to solve the problem.

2- Creative or innovative thinking: It is the human ability to invent what is unique or extraordinary, which motivates the person to invent the new.

3- Inferential thinking: It is a logical reasoning process that aims to reach new conclusions or knowledge based on the hypotheses available to the individual.

4- Contemplative thinking: It is one of the thinking patterns that an individual resorts to when facing a situation or problem and analyzes it and draws the necessary plans to understand it in order to reach the results.

5- Metacognitive thinking: It is the highest level of thinking, as it requires the individual to practice the processes of planning, monitoring and evaluation in order to think continuously. 28-29)

The concept of critical thinking

Critical thinking represents one of the mental processes that can generate ideas in a fleeting moment and may vanish unless you quickly write them down, which leads to the discovery of new ideas.

Critical thinking is the process of drawing a mental image of things and it is called (the concept), which is what thinking needs, because thinking needs this mental image in the process of solving any problem facing the individual who works to retrieve his previously learned experiences, which makes him need to form mental images.

He defined the concept of critical thinking as "examining the efficiency and effectiveness of beliefs and proposals in the light of the evidence that they lead and the facts related to them, rather than jumping to conclusions." Critical thinking includes mental abilities that were summarized by (Ennis) with the following ability to:

A- Defining and explaining the problem accurately.
B- Inference information.
C- Solve the problem and draw reasonable conclusions. (Ennis, 1985:46).

The importance of critical thinking

Critical thinking is important due to the individual's ability through the skills he possesses and which distinguishes him between facts and allegations, determining the accuracy of the news,

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determining the sincerity of the sources, the strength of discussion, the strength of proof, distinguishing between truth and opinion, drawing conclusions from the available scientific material, discussing, interpreting and evaluating information.

The researcher adds the following reasons that emphasize the importance of critical thinking:

1- It provides the learner with the thinking tools he needs in order to deal with the challenges of the information age.

2- It is one of the educational goals that society needs in its schools between contemporary, globalization and national identity in order to form a critical mentality that can achieve cultural balance.

3- It helps in confronting campaigns of cultural invasion and preserving cultural identity.

4- It develops in the individual the skills of communication and scientific education.

The third topic: artistic criticism

Art criticism and modern critical approaches

Criticism takes upon itself the task of interpreting phenomena and creative structures by addressing their analysis. This requires that the critic's foundations be based on a deep understanding of the premises of modern critical theories, in addition to providing the ability to read artworks in depth and analyze the links that link shapes, color spaces and other elements that make up the work. The technician has crossed (Jerome) In his famous book Art Criticism, when he described the clear difference that distinguishes criticism from aesthetic experience, due to his diagnosis of the issue of perceiving and receiving beauty, which is characterized by being fast and occurs at once during reception at a time when the critic needs a long time when analyzing works in a sequence. Which forms gradually give way, this is one of the important features and requirements that are related to criticism and analysis. See (Jerome, 2007: 738_739).

The researcher also indicates that the judgment made by the critic on artistic works and the position he stands towards them should not be a process of admiration or a process of resentment. prompted him to issue it and the standards it adopted" (Jerome, 27: 2007).

On the other hand, the process of criticism, which we have indicated that it is based on critical theories, is a process with philosophical roots because it subject all ideas to a process of skepticism in order to scrutinize them. It goes beyond the existing measurement tools. Whenever a critical theory is established, it first searches for the assumptions put forward by other theories, trying to question the claims of those assumptions, and through this it tries to demolish those assumptions and establish other possible assumptions. Russian, structural, deconstruction, and other critical theories and trends.

Chapter III

Research Methodology and Procedures

First: Research Methodology

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To reach the goal of the research, the researcher adopted the experimental method because it is the appropriate method for the research that aims to study the effect of an independent variable on a dependent variable.

Second: Experimental Design

In this research, the researcher has adopted a design with two groups (experimental and control), which are equivalent in some variables, with a pre- and post-test, and diagram (2) illustrates this.

The measure of the dependent variable	dependent variable	The independent variable	Statistical equivalence	group
1- A cognitive achievement test for the subject 2- Critical thinking test	Thinking critic	cognitive training strategy	Chronological age -1 Raven IQ test -2 Previous experience -3 (knowledgeable and (critical Parents' education -4 Arrange my son -5 sex 6	Experimental
		traditional way		control

Scheme (2) Experimental design of the current research

Third: the research community

The current research community consists of students of the third stage of morning studies - the Department of Art Education - in the faculties of basic education at Al-Mustansiriya University for the academic year (2020-2021), who study the subject of criticism and analysis scheduled for this stage, and their number reached (168) students divided into four Halls in the Department of Art Education.

Fourth: the research sample

After the researcher identified this college, she randomly chose from the third grade the Art Education Department Division (1) to be the experimental group and Division (2) to be the control group, by lottery, and the number of students in each of these two divisions was (43) and (42).) male and female students, and after excluding the students who failed in the same stage and the graduates of the institutes so that their previous experiences would not affect the results of the research, the number of students of the experimental and control group became (30,30), respectively.

Fifth: Equality of the two research groups

An increase in the accuracy of adjusting the extraneous variables, especially since individuals chose the two groups randomly from the research community, so the researcher verified the equivalence in some variables that may have an effect on the dependent variable other than the independent variable, and these variables are: - the chronological age variable, the intelligence

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variable, Previous experience, critical thinking test, parents' academic achievement, birth order, gender.

Sixth: Internal and external safety of the design

The internal validity and external validity of the design is one of the basic requirements for any experimental design, as it limits the influence of the extraneous variables and the surrounding conditions in the experiment on the experimental treatment. Campbell and Stanley (Campbell. D. T and stanley1963) identified eight extraneous variables that represent the internal validity of the design that the researcher must work to neutralize or treat, and these variables are: the accompanying accidents, the confidentiality of the experiment, the material, the teacher variable, the distribution of Lessons, trial dropout.

Seventh: Research Requirements

In order to achieve the research objectives and hypotheses, it was necessary to prepare the research requirements as follows:

1- Determining the scientific subject

In light of the requirements of the experiment and the nature of the research and the circumstances surrounding it, the researcher found that it should include the subject (criticism and analysis) to be taught in the second semester of the third stage, and these topics were divided into (8) topics with one topic per week distributed over (8) weeks.

2-The formulation of behavioral objectives

The researcher derived the behavioral objectives of the subject being studied during the experiment according to Bloom's classification of the six levels (remember, understanding, application, analysis, synthesis, evaluation) and for each of the subjects of the study subject, the number of which was in its initial form (71) behavioral objectives distributed among The six levels are (21, 15, 8, 25, 12, 4), respectively.

3- Preparing teaching plans

Since the current research aims to know the effect of the cognitive training strategy in developing critical thinking among students of the Department of Art Education in the subject of criticism and business analysis, so two types of teaching plans should be prepared to teach the prescribed scientific material during the experiment, a style of teaching using the cognitive training strategy and another style of teaching in the traditional way, Therefore, the researcher prepared (8) plans for the experimental group and (8) plans for the control group distributed over the school weeks, with one plan for the experimental group and one plan for the control group each week.

Eighth: Search tools

The nature and objectives of the current research require the availability of two tools for it, namely the achievement test in criticism and analysis for third-year students, and the critical thinking test as well. The following is an explanation of the conduct of these two tools.

First: Academic achievement test

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The researcher found it necessary to prepare this test in line with the nature and objectives of the research, because the achievement test constitutes one of the most common and used assessment tools in measuring students' achievement, as it is an organized procedure to determine the amount of what students have learned (Melhem, 2000, p.: 194). The test should be of the type of visual tests, with a multiple-choice and blanks type.

Second: Critical thinking test

To verify the previous information of the students of the two groups (T, Z) in the content of the art criticism course prescribed in the third stage / Art Education Department, the researcher conducted a pre-test to measure the cognitive information of the students of the previous two groups, as a test of critical thinking skills was applied in criticism and analysis on 20/ 5/2021, and the test may consist of (44) paragraphs with (3) alternatives to the answer, which has the answer (1, zero), and the process of preparing the critical thinking test has passed.

Ninth: Procedures for applying the experiment

The duration of the experiment was the same for the two research groups, as it lasted (8) weeks from the second semester of the academic year (2020-2021), as the experiment began on Thursday 20/5/2021 and ended on Thursday 7/8/2021.

Tenth: Statistical means

T-test for two independent samples, item difficulty coefficient equation, item discrimination coefficient equation, false alternatives efficacy equation, Keodor-Richardson 20, chi-square.

The fourth chapter

Research results

The result of the first hypothesis

For the purpose of verifying the first hypothesis, the researcher compared the mean scores of the experimental group and the control group in the cognitive achievement test by post-extracting the arithmetic mean of the experimental group of (44,13), and the standard deviation (3,148), as for the control group, the arithmetic mean is (31,60). , the standard deviation is (2,298), and Table (1) shows this.

Table (1) The arithmetic mean, standard deviation, and the calculated and tabular T-value for the scores of the two groups (experimental and control) in the cognitive achievement test

Tabular Calculation	T value		Degree Freedom	standard deviation	SMA	the sample	the group
	Tabular Calculation	T value					
function	2,000	17,610	58	3,148	44,13	30	Experimental
				2,298	31,60	30	control

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The results indicated the existence of a statistically significant difference in the cognitive achievement test in favor of the experimental group that was studied using the cognitive training strategy, and thus rejecting the first null hypothesis and accepting the alternative.

The result of the second hypothesis

For the purpose of verifying the second hypothesis, the researcher compared the mean scores of the experimental group and the control group in the dimensional critical thinking test and extracted the arithmetic mean of the experimental group of (36,33), and the standard deviation of (2,510), while for the control group, the arithmetic mean reached (20,80). , the standard deviation is (2,310), and Table (2) shows this.

Table (2) The arithmetic mean, standard deviation, and the calculated and tabular T-value for the scores of the two groups (experimental and control) in the critical thinking test

Statistical semantic 0.05	T value		Degree Freedom	standard deviation	SMA	the sample	the group
	tabular	calculated					
Function	2,000	24,941	58	2,510	36,33	30	Experimental
				2,310	20,80	30	control

The results indicated that there was a statistically significant difference in the critical thinking test in favor of the experimental group that was studied using the cognitive training strategy, and thus rejecting the second null hypothesis.

Conclusions

In light of the findings of the researcher, the following can be concluded:

1- Teaching criticism and business analysis to third-year students in the Department of Art Education, using the cognitive training strategy, is better than teaching them using the usual method.

2- The cognitive training strategy is better in developing students' critical thinking abilities, and it will stimulate the brain to think. Students respond to it through their acquisition of educational experiences and employing them in meeting the requirements of educational situations, especially with regard to criticism and business analysis. This information can be measured through Cognitive achievement test and critical thinking test.

Recommendations

1- Developing the teaching of all educational courses in the faculties of basic education by designing educational situations based on the directives of constructivist learning theory and

cognitive training, whereby the student is trained to think about what they learn, and use this in the formation and construction of real meanings and experiences.

2- Establishing specialized centers to teach cognitive training, in addition to teaching critical thinking, by setting up a series of workshops aimed at training learners on the necessary cognitive training strategies in education.

Suggestions

To complement and develop the current research, the researcher suggested the following:

1. The effect of the cognitive training strategy on developing creative thinking skills among students of the Art Education Department in the subject of handicrafts.

2. The effect of the cognitive training strategy on developing critical thinking skills among students of the Department of Art Education in the subject of Artistic Appreciation.

Sources

1. Abu Al-Maati, Walid Muhammad (2005): Cognitive, Emotional and Social Intelligence and Learning Styles for Freezers and Renovators at University Students, Mansoura University - College of Education - Department of Educational Psychology, (unpublished doctoral thesis), Mansoura, Egypt.

2. Hanura, (1991):

3. Resourcefulness, (1998):

4. Obeidat, Thouqan and others (1998): Scientific research, its concept, tools and methods, 1st edition, Dar Al-Fikr, Jordan.

5. Al-Atoum, Adnan and Al-Jarrah, Youssef and Abdel-Nasser, Thiab (2009): Developing thinking skills, theoretical models and practical applications, 2nd Edition, Amman: Dar Al-Masira for Publishing, Distribution and Printing.

6. Adas, Abd al-Rahman and Touq, Mohieddin (1998): "Introduction to Psychology", 3rd Edition, Jordan Book Center, Amman, Jordan.

7. Al-Azma, Rand Tayseer (2006): Developing critical thinking through the CoRT program. Amman: Debono Publishing and Distribution House.

8. Ali, Wael (2004): The effect of using metacognitive strategies on mathematics achievement and problem solving among fifth graders, studies in curricula and teaching methods, No. (264-96), p. 192.

9. Costa, Arthur and Garmston, Robert (2009): Cognitive training as a basis for Al-Nahda Schools, 2nd Edition, Dhahran Private Schools translation. Dammam House of Educational Book for Publishing and Distribution.

10. Melhem, Sami Muhammad (2000): Measurement and Evaluation in Education and Psychology", 2nd Edition, Dar Al Masirah for Printing and Publishing, Amman.

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11. Nadia Afwan (2009):

12- Campbell. D. T., and Stanley. J. Experimental and quasi:**experimental designs for research on teaching**,Chicago R and McNally &Company, (1963).

13-Ennis, Robert (1985). Alogical basis for Measuring Critical Thinking. Educational Leadership, Vol(43), NO(2),P63.

supplement (1)

survey survey questionnaire

Al-Mustansiriya University/College of Basic Education

Department of Art Education/Master of Art Education Teaching Methods

m / exploratory study

Peace, mercy and blessings of God :

Dear Student:

   The questionnaire that you have in your hands includes several paragraphs to know the reality of teaching criticism and business analysis in the Department of Art Education.

With thanks and appreciation..

Researcher Rawa Masoud Ibrahim

 Kindly fill in the information by placing a tick (√) in the appropriate box that suits you.

Questionnaire:

N	Paragraph	yes	no	sometimes
1	Do you find the traditional methods interesting in teaching criticism and business analysis?			
2	Do you find it difficult to understand the requirements of the subject of criticism and business analysis			
3	Do you like to actively and dynamically participate in the study of criticism and business analysis?			
4	Do you feel weak about how to criticize and analyze artwork?			