The Effectiveness of an Educational Program According to the Analytical Thinking Method in Developing Academic Motivation among Undergraduate Students in the Curricula and Teaching Methods Course

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Abstract--- The current research aims to know the effectiveness of an educational program according to the analytical thinking method in developing academic motivation among university students in the curriculum and general teaching methods. To verify the research goal, the two researchers imposed the following zero hypothesis: Students of the experimental group who will study according to the educational program and the average scores of the control group students who will study according to the usual way in the achievement test. To achieve this, the two researchers chose an experimental design with partial control as they intentionally chose the College of Education the basic of Babylon University to conduct the experiment. The research sample consisted of (60) male and female students (30) male and female students of the experimental group and (30) male and female students of the control group. The researcher studied the experimental group in the educational program and studied the control group in the usual way. Psychometric test of the test, the application of the experiment continued (8) weeks, and at the end of the experiment applied the achievement test to the two groups, after that the results were analyzed and showed the superiority of the experimental group students who studied according to an educational program over the control group who studied The usual way.

Keywords--- The Effectiveness of an Educational Program "Analytical Thinking Style" Developing "Academic Motivation" Undergraduate Students "Curricula and Teaching Methods.

I.   INTRODUCTION

The term effectiveness in educational research and human studies is considered the effect that experimental treatments can make within the field of education and psychology, which can be achieved in light of the different educational situations inside and outside the class (Al-Areenan: 2015:p.95) " and effectiveness is an adequate internal force that gives the ability to self Hard work and continuous movement to achieve the best results on the individual and social level within the framework of the correct social, educational and cultural perception (Al-Nadi,2000 :p. 11) and everything that falls under the higher education corps, including the effectiveness of educational programs.

The term Program is a relatively recent term for the rest of the terminology that has historical roots that are old

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and the program is a purposeful plan to perform some carefully defined processes designed to research any topic that pertains to the individual or the community a set of systematic and planned activities that aim to develop learners' knowledge, experiences and attitudes in and help them in Update their information, raise their competencies, solve their problems, and stimulate their thinking.

As educational programs of various kinds provide diverse experiences for students, and they work to arouse their interest, renew their activity, and satisfy their needs, and develop the ability to meditate, think, and the power of observation, if they include effective teaching strategies and methods through which modern methods and techniques are used in teaching, so educational programs have importance Significant in the educational process if well used (Alyian & Dibs, 2003: 226).

The brain is the material tool for thinking in which the human ability to pay attention, awareness, imagination, visualization, understanding the things around him, and responding to them is generated by realizing meanings, puzzles, and symbols, and these mental functions fall between the two hemispheres of the brain, as each half of the brain's hemisphere performs the same functions as the other half, but in the opposite direction, so the right half of the brain It moves the left parts of the body and also controls the functions associated with intuition, excitement, creativity and the use of imagination, sometimes called the intuitive half '. As for the left half, it is responsible for moving the right parts of the body as well as doing analytical and critical thinking He is responsible for the emotions and the contemplation, and the sovereignty will be with respect to the majority of individuals for the left half, as this is evidenced by the strength and skill of using the right hand (Hilal: 2014 '36).' On this basis, literary studies and scientific research have tended to exploit this position of the brain, so I studied the methods of thinking because of their importance in taking into account the intelligence and thinking of each student at the individual levels of students

The researchers used many descriptions to distinguish between the methods of thinking, and perhaps the multiplicity of descriptions of thinking and its nomenclature was one of the evidences of the researchers' interest in studying thinking and deciphering it since serious attempts began to measure intelligence after the mid-nineteenth century and there is no doubt that the environment has a major impact on members of society because it dictates behavioral patterns for them Certain and some cultures lead to different ways of thinking than others. Various educational studies and researches were conducted in this regard. The results of the studies were that the learners differed in their thinking styles, either because of their different environments or academic specializations or their different inclinations and desires. Modalities for receipt of information and experiences. (Haung &Sisco,1994:p75)

And that the learner's thinking style includes the way the learner receives the academic subject, including data, experiences, graphics, graphs, tables and comparisons, and rearranging and organizing them in a special structure that adds them to his cognitive repository, and then his ability to retrieve that study subject easily and easily and in various ways, including using visual educational means or Audio, material, physical, etc. (Qutami &Abu Jaber, 2002:p76) 'And that students' use of different thinking styles leads to a deeper and better understanding of the prescribed study subjects and this in turn contributes to helping the student to link the topics with some And some of them meaningful, and this in turn leads to easily absorbed and thus benefit from making effective teaching and this

confirms that he must be a teacher vital and active role in helping learners to acquire useful methods of thinking. (paul: 2003.p245)

One of those methods is the analytical thinking method, the owner of this method is characterized by his ability to break things down into their elements and to pay attention to minutes and details of things depending on the use of planning skill and the use of the largest amount of data and knowledge. The owner of this type of thinking sees his ability to reach conclusions in the light of his expertise, elements and materials Raw (Abu Hashem: 2007 '76)

The researchers see that interest in this method and employing it at the university level in the general teaching methods course is a way to facilitate the study of the methods of methods and stimulate student thinking and encourage it to interact with information and experiences and dismantle the material to its components and discover the relationships between those elements and perhaps find new things between those relationships and interventions and this in turn It can evoke students 'motivation, as motivation has a major impact on students' learning and behavior, as it works to direct students 'behavior towards achieving specific goals, as it leads to increased effort and energy spent by learners to achieve the goal, as well as determining the range Anyone with whom the student continues his work in the educational activity with enthusiasm and sincerity on the one hand or with weakness and indifference on the other hand and works to encourage the perseverance of the learners on the activity as they persevere in order to complete those activities until the end and encourage the processing of information in a way that achieves the goal through attention more and asking questions and inquiries from Understanding (Cyan: 2017'307)

II. RESEARCH PROBLEM

The contemporary educational administration faces multiple academic and administrative obstacles that limit its performance of the scientific mission entrusted to it and in view of the absence of a comprehensive vision and strategic view of the role of education in activating the future of development and investment of resources, which resulted in conflicting functions of education institutions and their duplication and slow development and production processes in them, including the lack of linking between the curricula and requirements Scientific research and the presence of large numbers of students, which results in negative effects, including a lack of understanding of the study material well, including the difficulty of linking vocabulary with each other, or lack of understanding of the meanings well, or getting used to memorization and Memorization. These attributes do not encourage thinking and the development of skills and methods (Ghanem: 2009, p. 25).

Since the thinking process is a mental activity, what should be known and that this activity may be marred by mistakes in the curriculum, as a result of which there are errors in the methods of thinking, judgments or decisions, and these errors may distort thinking about its correct path and the accumulation of mistakes leads to intellectual stagnation that fails the student's progress In this sense, the Almighty said: ((Those who have printed God's hearts, hearts and hearts, and those who are blind) and those who are heedless are the information. (Al-Nahl: The attribute of the study of the year 2015) 43) And not concepts Concerning the concepts of the study subjects in general and the concepts of the general teaching methods subject in particular, the reason may be that we have resorted at all stages of the study in acquiring different concepts to practical methods that depend on observation and

extracting results in light of what the learner is going through from practical experience and what he participates in his work During the educational situation (Jaber: 2005, p. 335).

It must be noted that our current age is one of successive technological developments and epistemological eruptions. The movement of scientific and academic reform has emphasized the current absorption of these developments. Attempts have been serious and efforts are bent on developing educational programs that focus on attention to thinking as it is the mental process that can accommodate all the developments taking place (Barakat: 2001;1) From that analytical thinking, there is a large consensus that the specialists in the field of education did not care about the pivotal rules of thinking, but that the educational system is not consistent with analytical thinking because the origin of education is based on the process of memorizing the subject For scientific and completion of the curriculum without paying attention to the details of its completion and how to do that (Ebaada,2001: 1): This may affect the decrease in students' motivation. One of the reasons for students' learning motivation is the failure to take advantage of students' inclinations and their mental, social and psychological needs, in addition to the lack of a positive class environment Interest in learning (Al-Farah & Michel. 2006:316) and some students feel tense during the lesson when what the teacher expects from him is greater than his abilities and capabilities, so he becomes sure of failure even before he begins his task (Kojak et al.: 2008'82)

Hence, the research problem lies in the fact that modern educational trends flow in the field of raising a promising generation that relies on the use of different brain capabilities through attention to developing mental skills and thinking methods and thus interest in developing students 'minds and improving brain processes in line with contemporary innovations and emergency changes

Research Objective: The effectiveness of an educational program according to the analytical thinking method in developing academic motivation among undergraduate students in the curricula and teaching methods subject.

Research Hypothesis: There is no statistically significant difference at the level ((0.5) between the average scores of students of the experimental group who are studying using the educational program and the average scores of students of the control group who are studying in the usual way in the post-test in general teaching methods.

Search Limits: The Search Limits are as Follows

1. Third stage students in the basic education colleges in Iraq for the academic year 2019-2020.
2. Topics from the general teaching methods course.
3. The second semester of the academic year 2019-2020

III.   DEFINING TERMS

Effectiveness: The ability to do something or make a difference. (Al-Fayyad: 2016 ')

The Educational Program: A comprehensive and integrated plan of concepts, rules and procedures proposed by theories of learning, which helps learners to achieve educational goals according to their capabilities, needs and interests and according to a set of instructions that should be taken step by step in order to provide the opportunity for the learner to progress towards achieving the goals identified closely and make sure At the end of the program, whether the learner has actually learned or not (Zayer & Dakhil '134' 2013)

Analytical Thinking Style: It deals with the ability to analyze different stimuli into separate parts that are easy to deal with and think about independently. (Al-Otoum & el, 2014:p28)

Development: Is the emergence and growth of all the potential and energies inherent in a particular entity in a complete, comprehensive and balanced way, whether this entity is an individual, group, organization or society. (Abu Al-Nasr & Yasmin: 67 '2017)

Academic Motivation: The internal desire of individuals to perform a task in order to obtain pleasure, happiness and self-satisfaction from carrying out that task or activity, which is motivated by a curiosity, searching for all that is new, a desire for excellence and achievement, a level of ambition, a spirit of challenge and insistence on facing tasks Difficult, new, and independent self-efficacy. (Abdullah, Zeinab, 4, 2011)

University Level: It is the stage that follows the preparatory stage and the period of study in which four years are obtained. A bachelor's degree is obtained in various human and scientific specializations, and the student graduates from it, and he is scientifically, professionally, and educationally qualified to join the labor market.

General Teaching Methods: A set of procedures that the teacher performs in the classroom with its sequential, interconnected steps and various activities in order to achieve pre-defined educational goals for learners. (Zghoul & Mahamid: 84'2007)

IV. THEORETICAL BACKGROUND

The structure of educational programs: The process of building the educational program is one of the most prominent stages of the educational process and that the recent trends that exist towards building programs facilitate and develop the skillful skills of the learner and advance his reality from all areas of growth he possesses. The success of the program depends mainly on the careful construction of it. And if an educational program is organized, it is necessary first to define the main educational goals that are directly related to the subject matter, and through this the different fields of human behavior are identified and then translated into special goals used to serve the general goals. (Zayer el.: 36'2014)

Analytical Method: The owner of this method is characterized by his ability to disassemble things into their elements and pay attention to minutes and details of things depending on the use of planning skill and the use of the largest amount of data and knowledge. The owner of this type of thinking sees his ability to reach conclusions in the light of his experiences, elements and raw materials (Abu Hashem: 2007 '76)'

The results of the development process in the educational institution:

1. Achieving total quality.
2. Achieving high achievements and outputs.
3. Super competitive ability.
4. High morale for individuals.
5. Change, development and spread of the team spirit. (Shibli and Manar: 15'2003)

Factors Affecting Academic Motivation

There are several factors that influence learning motivation:

A. Adjusting the learner: The process of controlling the learner is done by providing options for students to accomplish their academic jobs and through written reports, oral lectures and exams, as well as by providing options for the student in the tests and the method of repairing the test taking into account the student's scientific background.

B. B - Rewards: Rewards are used when the student does not have a desire to learn a specific subject and this is done using simple and effective rewards at the same time.

C. Student interests: The teacher can bring the subject matter closer to the interests of students when explaining the study material, by starting the lesson with an interesting introduction to stimulate students 'interests and present academic activities as issues, gas or problems, and students should solve them and consider the content of the study.

D. Student initiatives and self-reliance: This is through the student's participation in setting educational educational goals and encouraging him to contribute to setting study plans and the means to be followed in the academic process. (AL-Rifua: 2015 '210)

Previous Studies

A. Idris Study 2010

(Analytical thinking and its relationship to opposing ideas and the Persian-literal style)

The study aimed to measure the analytical thinking of the university students, the budget in the analytical thinking of the university students according to the gender variable (male - female). And the budget in the analytical thinking of the university students according to the variable of academic specialization (scientific - human).

The population of the study consisted of students of the colleges of Baghdad University, amounting to (24) colleges in the scientific and human specializations, and a total of (44403) male and female students distributed in (12) colleges for scientific specializations. The researcher relied on choosing his applied research sample on the random class method of equal distribution, as He chose (400) male and female students from (4) colleges at the University of Baghdad: (Engineering, Science, Languages and Literature) distributed equally according to the two variables of the academic specialization (humane science) and gender (male female) and by (200) male students and (200) female students Females and others from scientific and human specialties.

In order to measure the research variables (analytical thinking, opposing ideas, and the Persian-literal style), the researcher built three tools, including the scale of analytical thinking for university students.

The researcher used the statistical means available in the statistical program marked with the statistical bag for social sciences known as (SPSS). (Idriss: 1-2/1/2010)

B. Al-Saadi's Study (2015)

The study was conducted in Iraq and it aimed to identify (the effectiveness of an educational program according

to the theory of meaningful learning in achieving the subject of geography and academic motivation among fifth literary students).

The researcher adopted the descriptive approach in building the educational program and the experimental approach in demonstrating the effectiveness of the program.

The sample of the study consisted of (52) female students from the fifth literary class, by (27) female students from the experimental group, from the female high school students, Shams Al-Hurriya, and (25) female students from the control group from the secondary female students of the Arab Seef.

The researcher rewarded the following variables (chronological age calculated by months, IQ test, previous information, previous year grades, parents 'academic achievement, academic motivation scale).

The researcher built an achievement test consisting of (100) paragraphs with (91) objective paragraphs and (9) article paragraphs, and adopted an academic motivation scale adapted to the Iraqi environment and consisting of (50) two-point correction, the experiment took an entire academic year

The researcher used a mann and tanny test for large samples, the results showed that the students of the experimental group who were exposed to the educational program outperformed the students of the control group who were not exposed to the educational program (Al-Saadi, 2015, p.9)

C. Balancing the Current Study with Previous Studies

1. In Terms of Goal: The current study aimed to identify the effectiveness of an educational program according to the analytical thinking style in developing academic motivation among university students in the curricula and teaching methods subject. As for the 2010 Idris study, the goal was to measure the analytical thinking of university students, the budget in analytical thinking among university students on According to the gender variable (male - female). And the budget in analytical thinking among university students according to the variable of specialization (scientific - human). As for the study of Al-Saadi 2015, the aim of the study was: The effectiveness of an educational program according to the theory of learning with meaning in the acquisition of geography and no Academic motivation among fifth literary female students in geography for female Saad students.

2. In Terms of the Location of the Study: In the current study, the location of the study in Iraq was at the University of Babylon / College of Basic Education. As for the study of Idris 2010, it was in Iraq also in the compound of the colleges of Baghdad University and in the study of Al-Saadi 2015 the location of the study in Iraq was in the governor of Baghdad.

3. In Terms of the Research Sample: In the current study, the research sample was 60 male and female students, 30 of them were for the experimental group and 30 others for the control group. As for the study of Idris 2010, the research sample consisted of (44403) male and female students distributed in (12) colleges for scientific specializations. The researcher was approved to choose his research sample Applied to the random class method of equal distribution, as (400) male and female students from (4) colleges at the University of Baghdad chose: (Engineering, Science, Languages and Literature) distributed equally according to the variables of the academic specialization (human science) and gender (male female) and the rate of (200) male students and (200) female

students, and the same is from a specialist Scientific and humanitarian either Saadi 2015 study sample consisted of 52 female students from the fifth grade by literary (27) students experimental group of secondary students and the sun of freedom (25) students for the control group of secondary students the Arab sword.

4. In Terms of Statistical Means: the statistical means in the current study were the T-test for two independent samples, the strength of the paragraph definition, the coefficient of the paragraph difficulty, the equation for the effectiveness of wrong alternatives, and the Alpha Kronbach equation. In the 2010 Idris study, the statistical methods available in the statistical program tagged the statistical bag of social sciences known as SPSS. .

As for the 2015 study of Al-Saadi, the statistical methods were the T-test for two independent samples, and the researcher used a mannequin test for large samples.

Search Procedures: The current research procedures include:

First: The Experimental Design

The experimental design is an affirmation that every field experimental study has its own experimental design that guarantees the researcher the proper structure and the method that sets him research procedures and reaches reliable results in answering his research questions (Al-Azzawi, 2008: 118) 'and approved The two researchers are experimental design consisting of an experimental group and another control with two tests before and after, and it is partly designed as shown in the following figure:

Group	Test	Independent variable	Dependent variable	Test
Experimental group	Pre-test	educational programs	Academic motivation	**Test after**
The control group				

Second: The Research Community and its Sample

1. The Research Sample: The research community and its sample are the main nucleus around which all research procedures revolve, taking into consideration when determining that they are an integrated group of individuals, things or numbers that have a common privacy that can be observed or analyzed (Sabri et al., 2001) 'is considered a sample The study represents a model that represents a side or part of the original community units for research, and is representative of it, meaning that it carries the characteristics of the joint. This model or part enriches the researcher to study all the units of the community and its vocabulary, and the samples are chosen according to accepted scientific methods and methods (Nawfal, Feryal, 2010: 232)

The current research required the identification of a number of Iraqi universities from the third stages of the colleges of basic education. As for the research sample, the third stage students were from the Department of Geography at the College of Basic Education / University of Babylon, as the experimental group consisted of (30) students and the control group consisted of (30) students. A female student, whereby the experimental group students studied general teaching methods using the educational program, while the control group students studied in the usual way, as shown in the following table:

Group	Number of students
Experimental group	30
The control group	30
Sum	60

2. Equivalence of the Two Research Groups: The two researchers were keen to conduct parity between the two research groups in terms of gender and age calculated by months and in the levels of the previous information test and in the intelligence test scores and the purpose of this is to obtain objective and accurate results that do not affect the integrity of the experiment.

3. Control of Extraneous Factors: Control of exotic variables is one of the important procedures in experimental research, in order to provide an acceptable degree of internal honesty for experimental design so that the researcher can attribute most of the variation in the variable to the independent variable in the study and not to other variables and thus reduce the Error variance (Melhem, 2010: 73). These include accompanying factors, maturity factor, experimental extinction, test factors, research tools, and research procedures.

4. Formulating Behavioral Goals: It is one of the important steps that reduce effort and time and helps in judging the extent of dogs' progress in their education and helps in increasing their achievement (Al-Zyoud & Hashem, 2005: 71). A behavioral goal is a written statement describing a specific behavior that can be observed and measured. Formulating the behavioral goals helps us focus on the main points of the lesson and saves time and effort for the learner (Shubr, 2005: 39). 'The researchers have prepared a set of behavioral goals related to the vocabulary of general teaching methods subject and presented to a group of experts.

5. Preparing Study Plans: This step includes defining the general objectives of the course and a list of topics that will be addressed or studied so that it covers the general objectives of the course in addition to planning and defining the strategies necessary for the success of the course of the lesson that the teacher intends to follow and commensurate with the capabilities of students and their minds in addition to planning requirements and methods of evaluation in If it is oral, editorial, laboratory, social, or individual and identifying aspects of the evaluation: cognitive, skillful, or emotional (Obaid,2006:P300) 'The researchers prepared a set of study plans according to the guidelines for writing study plans and they were presented to a group Of experts.

6. Achievement Test: It is the tool that the researcher uses to obtain quantitative data that helps him in answering the research hypotheses and its objectives. Therefore, the researcher needs to prepare it in an organized manner according to a set of procedures that are subject to tight conditions and rules (Abu Fouda & Najati,2012: P26). The researchers prepared an objective test of achievement, as it was the best one, and it was presented to a group of arbitrators also to find out its effectiveness.

7. The Educational Program: The educational programs are among the organizational frameworks that can be used in many subjects and in different educational materials because they are concerned with planning educational materials according to various mechanisms aimed at enabling students to study content and assimilating it in a way that ensures the granulation of the subject to the hearts of students and this is done through organizing Information to flow into the educational process and identify postulates and collect the necessary data in order to organize

learning materials to become more effective by defining the appropriate procedures that can be used in a manner consistent with the nature of the course (Al-Zahawi,2006:28-28) The researchers prepared Rana An educational field according to the analytical thinking method, and it was presented to a group of arbitrators to determine its suitability for the purpose of applying it to students of the experimental group.

8. Academic Motivation Scale: After the two researchers reviewed the literature and previous studies and the theoretical framework related to the subject of academic motivation scale, they decided to adopt the academic motivation scale prepared and translated by the researcher (Azhar Aboud Hassoun 2012) which consists of (28) paragraphs (Hassoun, 2012 :p. 22))

9. Statistical Means: The two researchers used statistical methods, including: T-test for two independent samples, Spearman equation, paragraph strength differentiation, and paragraph difficulty coefficient, efficacy of faulty alternatives, Alpha Kronbach equation, and Kay square equation.

Presentation and Interpretation of Results: The results showed that the experimental group students who studied using the educational program exceeded the control group students, that is, there is a statistically significant difference with a level of significance (0.5) between the average score of the experimental group students and the average score of the control group students who studied in the usual way in the achievement test The reason is that the use of the educational program prepared according to the analytical thinking method was the main reason, because it included a set of various activities and a number of different strategies and a number of different general and behavioral goals which contributed to raising the level of Academic motivation and thus raise the achievement level of the students in the subject of general teaching methods.

V.   CONCLUSIONS

The researchers concluded at the end of applying the educational program the effectiveness of the program and its success in raising the level of students' achievement and developing their analytical thinking, thereby raising their academic motivation.

Recommendations

The two researchers recommended the adoption of educational programs, especially those involving the development of thinking skills, the preparation of its programs, and the study of thinking methods, as it encourages stimulating students 'thinking, deepening their social relations between students themselves and between students and their teachers, spreading the spirit of competition between them, instilling confidence between them, and encouraging them to present their ideas and possess literary audacity.

Suggestions

The two researchers suggested conducting the same educational programs and other thinking methods in other subjects and colleges, other scientific or humanitarian.

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