



# **Effectiveness of the cooperative learning methods and brainstorming for classroom management and their impact on student's achievement**

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## **Introduction:**

Many thinkers and pioneers of education and management emphasize the importance of collaborative learning and brainstorming by university professors, teachers and teachers in most developed countries and that it is a concept based on a strategy aimed at developing educational work through improving their professional and leadership performance. It began with the early 19th century focusing on the concept of collaborative learning and brainstorming in theory and practice and showing their impact on the advancement of professional growth programs for this important segment, in addition to trying to establish the conviction of the importance of practicing cooperative learning and brainstorming as an input in the development of semester administration.

Brainstorming is one of the most effective methods used to develop students' creative thinking. It is also a major step in the way of problem solving in innovative ways (Omar, 2008).

The use of collaborative learning methods and brainstorming in teaching frees teaching from the routine of transferring information ready to students, making it practice new as it becomes directed and stimulating for learning motivation (Gabbayn, 2004).

Johnson et al. (1995, pp. 1-6) presented a new approach to education on the concept of collaborative learning. Students work together in small groups to achieve common goals. Students are divided into groups of (2-5) members, They receive instructions from the professor and then take the work until all members of the group have successfully completed it.

According to Johnson and his colleagues 'strategy of collaborative learning and brainstorming, collaborative work, in contrast to competitive work and individual work, increases achievement and productivity in students' performance, emphasizes positive relationships among them, improves mental health and self-esteem. ( Hajji 2000, p. 90) It uses students as sources to learn from each other. This is because the performance of group members depends on the other members of the group and therefore the positive interdependence is increased among its members.

Hence, this study is important because it seeks to institutionalize the concept of collaborative learning and brainstorming as new entries in the development of classroom management in terms of determining the methods and criteria on which it is based. It then seeks to identify the limits of the role that these two types of cooperative learning strategies can play And brainstorming in the development of educational practice in general, through the development of the performance of the professor in the management of grade.

### **First: Problem Search PROBLEM OF THE RESEARCH**

The researcher noticed through his teaching work and his presence in class positions and the study of the grades of students in the fundamentals of education and general psychology. This is due to the failure of the usual methods to meet the needs of intellectual growth and its requirements. These strategies include the strategies of brainstorming and collaborative learning. Therefore, it is possible to have a variety of teaching strategies, which are concerned with students' understanding of knowledge and their use in the development of their thinking and learning. Iron problem in the main following question: What is the effectiveness of brainstorming strategies and cooperative learning in the classroom management and its impact on student achievement in the subjects of the foundations of education and general psychology.

The main questions stem from the following two questions:

- 1 - What is the effect of using the cooperative learning method for classroom management in student achievement?
- 2 - What is the effect of using the storming method to manage the semester in student achievement?

Some studies related to the current education rate indicate that more than 85% of the work done in universities is based on individual competitiveness among students. Cooperation and building social skills are not given the necessary attention. Other studies have shown that the most important element in the failure of individuals to perform their careers are not due to a lack of their skills and scientific skills, but to a lack of their cooperative and social skills, as a result of the change in the family environment, in terms of transition from the large family to the small family,

which has a negative impact on the social skills of the students. The traditional educational methods make the student a recipient of information, instructions and orders, without the participation of the teacher or parents in dialogue, discussion, analysis, conclusion and access to the facts, all this makes the learner lost the spirit of research and sound thinking.

(Mustafa, 2002, 23).

The educational trend has also focused on the importance of following the environment in fostering the spirit of innovation, creativity, leadership, communication, building confidence, making decisions and managing the necessary differences. In addition, (Aboud, 1995, 81) that the teacher's main problem in the classroom is to show rigor, so that the students remain conservative. The role of teaching is to develop the traditional environment for the purpose of human development commitment sound educational standards, with a view to increasing internal productivity, which stem from the need to define methods of classroom management strategies, to prepare the appropriate environment for the use of modern methods to increase productivity in the classroom.

For all these reasons, it is essential that teachers recognize the strategies of cooperative learning and brainstorming and train on their classroom uses as they are strategies that help students to increase their learning and communication and acquire the social skills necessary for success in life.

The study problem can be identified in the following main question:

What is the impact of the use of cooperative learning methods and brainstorming of classroom management in student achievement?

## **Second: IMPORTANCE OF THE RESEARCH**

The importance of collaborative learning and brainstorming is that they meet the psychological needs of students on the one hand and the content of the material on the other hand, as well as effectiveness within the collective framework. Students practice two kinds of activities:

**Knowledge:** Its mission is to acquire knowledge for students and teach them facts and laws.

**Innovative:** Its mission stimulated the motivation of interaction among students and through this way they express themselves. (Nabil, 2000, 183).

In the opinion of the researcher in the recruitment of strategies of collaborative learning and brainstorming may contribute to motivate students to learn the foundations of education and public psychology through the overlap of information they get from each other through the cooperative groups that study and consult in them and thus increase their motivation to learn and ultimately increase their academic achievement as well as a new and vital topic of interest to the educational and educational field workers of university professors and universities and departments, as well as educational decision makers, in order to raise the level of education in general, highlighting the elements. The basic component of the method of cooperative learning and brainstorming, and how to benefit from the development of the performance and development of classroom management by teaching, and try to bridge the gap

resulting from traditional educational practices that give teaching the full role in the language of educational communication, it is the sender only, without the benefit of other educational elements, such as: the student, to participate in the management of the management of the classroom, in order to learn better is an effective educational link between all parties to the educational learning process.

### **Third: Research objective**

To answer the main question of this study, the researcher set the following objectives:

- Maintaining the educational methods and standards on which the concept of collaborative learning, brainstorming and classroom management is based.
- Determining the role that cooperative learning and brainstorming strategies can play in the development of classroom management through an experimental study that demonstrates the degree of statistical significance between the experimental and control groups in some courses (the foundations of education, general psychology).

To achieve the research objectives, the researcher put the following questions:

- 1- Are there statistically significant differences between the two groups: the first experimental, and the control in the achievement level of the students in the foundation material of education, as a result of the use of cooperative learning method?
- 2 - Are there differences of statistical significance between the two groups: the second experimental, and the control in the level of achievement of students in the basis of education, as a result of the use of brainstorming method?

- 3 - Are there significant differences between the two groups: the first experimental and control in the achievement level of students in the general psychology, as a result of the use of cooperative learning method?
- 4 - Are there significant differences between the two groups: the second experimental and control in the achievement level of students in the general psychology, as a result of the use of brainstorming method?

#### **Fourth: Research limits**

- 1 - Students of the first stage - the English language department at the Faculty of Al-Qalam University in Kirkuk governorate.
- 2 - The second semester of the academic year 2016 - 2017.
- 3 - Chapter four, fifth and sixth articles of the foundations of education and general psychology.

#### **Fifth: Definition of Terms: Definition Of The Terms**

Effectiveness:

Defined by:

(Qatami and Naifah, 1998), as "The level of student achievement according to any aspect of educational outcomes, whether cognitive, emotional, emotional, or emotional" (Qatami and Naifah, 1998, 17)

- Zaytoon (2001) "The extent to which the system outputs match its objectives" (Zeitoun, 2001, 17)
- The Dictionary of Educational and Psychological Terms (2003) "The Effectiveness of Experimental Processing as an Independent Variable in One of the Affiliate Variables" (Shehata & Al-Najjar, 2003, 230)

Procedural Definition: The impact of the strategies of cooperative learning and brainstorming in the achievement of

students in the first stage of the faculty of the university in the subjects of the foundations of education and general psychology.

Strategy: Defined by:

(Heelah:1999) as "specific actions or methods for the implementation of a particular skill. Education is strategic when learners are aware of the special skills they use in learning and control their attempts to use it." (Heelah, 1999, 64).

(Kojak, 2001) as a "general plan of action developed to achieve certain objectives and to prevent the achievement of undesirable outputs and designed in the form of procedural steps and put each step alternatives that allow flexibility in the implementation of the strategy and turn each step of the strategy to techniques, Deliberate and planned follow-up in order to achieve the specific objectives ". (Kojak, 2001, 301)

Procedural Definition: A set of steps and procedures that were prepared to teach the subjects of the foundations of education and general psychology for the first stage in the Faculty of the university AL-Qalam on the basis of which students are divided into cooperative groups.

Collaborative Learning: Cooperative Learning: Recognized by:

(Lonning, 1993) as "a way in which students work in small groups that are heterogeneous in terms of scientific capacity and background and interact to achieve common goals."

(p: 10871993 'Lonning)

(Al-Karash, 2000) as a "teaching strategy that organizes students in small groups of different levels of achievement, where students of one group cooperate and interact with each other



during learning under the supervision and guidance of the teacher who provides the necessary reinforcement to each group according to its overall performance." (Jerash 2000, 9).

(2007): "A learning-learning method that is based on dividing students into small groups (2-5) students to achieve a set of mutual mutual goals through cooperation among group members, positive interdependence and unanimous decision-making through negotiation Social. " (Zaytoon, 2007: 554)

Procedural definition: "A learning strategy in which students are divided into heterogeneous groups in achievement and intelligence. Each group (5) of the students are assigned a special role (leader, teacher, writer, fan, observer).

Cooperate with each other to achieve the goals of the lesson of the foundations of education and general psychology and the role of the teacher is limited to supervision, guidance and feedback "

Brainstorming according to (Abdullah, 2011) is defined it as "putting the brain in a state of mind with a very focused focus in order to generate as many ideas as possible about a particular subject."

As defined by Abdul Wahid Al-Kanani (2009) is "a method of thinking and developing methods to encourage learners to generate ideas and solutions to a problem during a short session without objection and then to evaluate it at the end of the session"

Procedural definition: The method of modern teaching followed by the researcher with an experimental group of learners selected according to scientific controls and then make a differentiation between the ability to retain and recall the information for this group with the detachments of the control group taught in the usual way of lesson (lecture method).

## **Sixth: The theoretical framework**

### **First: the concept of collaborative learning**

The physical and mental capabilities of man are limited, and he is not qualified to fulfill all his desires and needs, and therefore he has to cooperate with others and cooperate with others to achieve common goals. This desire to achieve goals and desires through cooperation and efficient work is not limited only to individual human beings, but also extends to groups in any society. When organizing a group of individuals in order to achieve a specific goal, it is necessary then to have a department that works to create the conditions and organize efforts to achieve the common objectives required. These efforts are represented in the educational role of the educational coordinator in the coordination of classroom and non-class activities (1995, p.1: 1,2) stressed that the pattern of wasting opportunities to benefit from the work force of groups in educational institutions is due to at least four reasons:

- 1 - The educators do not realize that isolated work is an abnormal system in the world, and that one person cannot build his own housing.
- 2 - not to assume responsibility in the idea of development in the group of learners, and thus reach the lack of responsibility for teachers to teach students to their peers in and out of the classroom.
- 3 - The minds of educators dominated the idea that the work of committees and groups is not successful, and thus echo the saying: If you want to hinder a topic in the world, this is to be referred to committees to study.

The fear and lack of determination, for many educators, in the use of collaborative educational groups 4 -

One of the most important contributors to the idea of collaborative learning indirectly (Jean Piaget) is the famous psychological world that has had a great impact on the curriculum and the organization of the education ladder. Piaget's theory emphasizes that learning and development in the individual is produced through collective collaboration between peers. He explained that children discover meaning and are their characters based on the similarities and differences between them and others. The child works during the interaction within the group as the recipient and recipient of instructions and information, and that interaction which results in a lot of negotiation and discussion leads to the development of listening skills and learning how to resolve This helps to instill and encourage individual skills (Mohammad, 2005: 35)

The researcher believes that cooperative learning works to enhance the level of achievement and raise it more than other types of competitive learning. Recent research links collaborative learning experiences in the classroom to improving student individual achievement, improving thinking, increasing academic achievement, and taking more positive attitudes toward teaching and better skills within Communities and greater mutual respect and respect.

Some collaborative learning strategies:

- Peer Instruction
- Team Games Tournaments
- STAD
- Learning Together
- Integration Method

- Group Investigation
- Cooperative Learning Structures

(Al hela, ٣٩٩ ،١٩٩٩ )

### **The Role of Teaching in Cooperative Learning:**

The roles of teaching are varied when using cooperative learning by providing the appropriate conditions to ensure the smoothness in achieving this type of learning. The roles of teaching are defined as follows:

1. Define groups with lesson objectives and group objectives.
  2. Creating the proper educational climate for the work of the groups in terms of material and moral.
  3. Distributing students to heterogeneous groups and determining the number of individuals in each group.
  4. Explain the task assigned to the groups and follow-up implementation.
  5. Provide appropriate reinforcement and moral rewards for working groups.
  6. Evaluate the work of groups and individuals in each group.
- (Tamimi, 2010, 114)

The role of the learner in cooperative learning:

1. Participates with his colleague in the activity.
- 2 - show enthusiasm in the course of activity (show in the speed of work and the number of attempts and cares about what he does and persevere on what he does the work).
- 3 - Cooperates with colleagues in the group (helps his colleague and exchange roles and places to do each part of the activity).
- 4 - Competes with his colleagues in what they share his work.
5. Quietly chatting with colleagues.

6. Urges his colleague to continue the activity until it is completed.
- 7 - engage in activities with his colleagues.
8. Accepts and comments on the work of his colleagues.
- 9 - Respond to the guidance and instructions of the teacher.  
(Jabri et al., 1998: 188)

### **Second : Brainstorming**

Osborn is the first to discover the method of brainstorming in 1938 in the affairs of publishing, propaganda and information. He quoted this method from the Hindu religious teachers who used them four hundred years ago and they called it (Prai - Parashana) and the word "Prai" means the side that is outside the scope of thinking , but (Parshana) means the question, and yet the brainstorming was a new approach to stimulate creativity, which is based mainly on the separation between the production of ideas on the one hand and the evaluation on the other.

Brainstorming, open-ended questions, brainstorming, and the perception of solving the problem as a challenge to the human mind for a problem whose solution requires circumventing it for consideration from more than one side and trying to encircle it and break it with ideas that Is actively generated and the speed of the storm is similar (Hanan al-Jubouri, 2005)

The idea of brainstorming is to generate ideas freely as a first stage, a stage of free production of ideas, beyond the control of the mind, so that all that flows in the mind of proposed solutions reach free expression in which to launch ideas in public, albeit incomplete maturity or unacceptable. The stage of the calendar is to prepare a list of the order of ideas according to their levels among them. This is what distinguishes the storm from other research studies that are based on analysis and study in the context

of the generation, presentation and arrangement of ideas  
(Mohamed Abdelghani, 1997)

### Steps to apply brainstorming

- 1- Determining the subject by devising the subject from the subject of the lesson he is teaching.
2. Formulating the problem as a question.
- 3 - Create an atmosphere of creativity and the flow of ideas, the learners to make whatever they want, regardless of the degree of relevance of the idea of the subject or the possibility of implementation in order to search for the right answer and not slow their ideas and give way to free fall by taking enough space in the session.
- 4 - Start the process of focusing the teacher asked the question, which counted as in paragraph (2) on the learners and instruct them to start generating ideas and sets them a time limit ranging from (3-10) minutes to give what is in their minds.
- 5 - Review ideas on the role between groups of learners, while avoiding criticism of the teacher for any of them except what is intended intentionally to abuse.
- 6 - Revision of ideas by asking learners to choose the best ideas put forward.
7. Develop one of the most distinctive ideas and strive to turn them into a viable idea.
8. The teacher comments on the ideas of promoting the most distinguished to develop the flexibility and authenticity of the ideas presented and the importance of thinking in different fields, and praises those who put forward a number of ideas to encourage the fluency of generating ideas and the statement of ideas that may bear scientific errors without

mentioning the name of the reference. (Hanan al-Jubouri, 2006)

### **Specifications of brainstorming session leader:**

1. Be able to provide the appropriate atmosphere and configuration.
2. Be able to stir up ideas and enrich them.
3. Have the ability to simulate and innovate.
4. Be aware of the subject of the session.
5. Have a wealth of information.
6. Be able to contribute to the presentation of ideas when intellectual flow slows down.
7. Not to issue judgments about ideas during the session or to minimize the importance of any idea presented.

The entries in the meeting shall be recorded without the names of the speakers presenting the ideas during the session.

For the success of the brainstorming session, the group leader must manage the session by defining the problem and solving it, maintaining the session system within the classroom, being courageous and enthusiastic, avoiding the harsh criticisms of the participants and fixing the duration of the session, encouraging the participants and adding humor to the session by offering possible, practical and impractical opinions in the atmosphere. It is friendly to welcome and discuss all ideas, and you should not criticize or evaluate ideas during the brainstorming session. Criticism is a dangerous element for the group to come up with an idea, to encourage participants to come up with ideas and come up with new ideas.

### **Teaching role in classroom management**

The role of the teacher in classroom management can be categorized according to Kulthoubun (١٩٨9: 119-122) as follows:

- Formal authority: The educational system is restricted by laws, customs and government regulations. This restriction has given the teacher the so-called official authority, which is widely used as a basis for discipline and guidance in putting an end to students and teachers by imposing formal penalties when they exceed borders. The selection of books and teaching processes is part of the teaching authority.

- Emotional power: refers to the personal relationship between teaching and students, which are positive and the flow of emotion, and encourages the recognition of the psychological state of the student accept the tradition of the teacher and follow his guidance, and becomes a teacher example beloved father, and such kind of power is very strong in the early stages and less His degree as maturity

Psychological status: Higher than the emotional relationship, if approaching it. Pedagogy in-depth understanding of the students and their motives and problems have a great experimental authority, and such wisdom is used to help students grow with their best abilities.

- The superiority of knowledge: When teaching is rich in information, it gives itself great power, becomes the expert in the field of work that he seeks for accurate answers, becomes respectable and has control over them, and teaching who does not know and make mistakes in the provision of information lose respect and problems, He should know everything but be one of the most prominent qualities of effort and satisfaction in searching for the correct answer.

### **The role of teacher in cooperative learning**

In each class, the teacher should choose the role of the instructor



rather than the role of the teacher. Therefore, it is necessary to remember that speaking in education is not covering the material to the students. Rather, it is to disclose it to them. As the sole source of learning The role of teaching in the formal cooperative educational groups is determined in five parts, according to the entry of Johnson and his colleagues for cooperative learning as follows:

1. Set the objectives of the lesson
- 2 - make certain decisions about the placement of students in educational groups before starting to teach the lesson
- 3 - Explain the mission and the target statement for students
- 4 - lose the effectiveness of students within the groups, and intervention to provide assistance to perform the work in answer to the questions of students, and learn the skills of the task or improve the skills of students and the personal skills of the small group
4. Assess students' achievement and help them discuss how they are progressing in their collaboration.

### **Cooperative learning tools**

Collaboration and conflict are intertwined. The more members of the group are interested in achieving the goals of their group, and the more they are interested in each other, the more likely they are to have certain conflicts. As Johnson and his colleagues (1995: 1-11) claim,

1. Teaching students the procedures and skills needed to manage academic conflicts associated with educational groups.
2. Teach students the necessary procedures and skills to negotiate for constructive solutions to their conflicts and to mediate conflicts among colleagues in educational groups.

### **Management of the semester**

There are several studies that have listed the following terms on the concept of (class and chapter), and these studies study both (Hamdan, and the Anashif 1987), the class and the separation in the two studies in a single concept, and there is no difference between them, "Class", which Hamdan defined as "a set of educational strategies that coordinate the data and teaching factors in different ways, in order to facilitate the process of education within the classroom in order to enrich the outputs."

### **Scale class management**

Several studies indicate that there are many dimensions that are focused on the management of the classroom. The study of Shakri (2002: 4) stated that these dimensions are:

1. Organize and arrange the classroom
2. Create a class atmosphere.
- 3 - control the behavior of students

The study also confirmed that the teachers are practicing the organization and arrangement of the semester with an excellent degree. And that teachers with long experience in training outnumber their peers with less experience in organizing the semester.

### **The influence of the classroom environment in its management**

Each classroom has a distinct environment, the characteristics of which are the nature of the relationships between the students and the class, and between them and the teaching, the method of teaching the academic content, in addition to their understanding of some organizational facts of the classroom, and the learning environment in the classroom varies according to the subject matter. Each chapter has a distinct characteristic or climate that

distinguishes it from other chapters and influences the effectiveness of learning within the classroom.

Al-Rawaiqi's study (1990, p. 5) dealt with some studies which determined that there is a correlation between the performance of the students and the classroom environment, and found that the classroom environments vary according to the variety of subjects. This is reflected in their performance (cognitive variables) The number of students in the semester, the absence rate, the location of the educational institution, the environment, and the students' satisfaction with the educational institution. The results confirmed that the increase in the number of students is associated with the classroom environment. The absenteeism rate is higher in classrooms where student competition has increased, teaching control, lack of support and interest, and individual classroom environments characterized by disorganization and competition.

### **previous studies**

#### **- 1995Warkentin study**

This study was conducted in the United States of America and aimed at revealing the effect of cooperative learning on the achievement of high school students in chemistry.

The study sample consisted of (84) students randomly selected from the Department of Educational and Psychological Sciences in the Faculty of Education. The sample was randomly divided into two groups, one of which consisted of 42 students who underwent cooperative learning. The second group consisted of (42) To the normal way. The study instrument was a multi-choice multi-choices achievement test and the results showed that the experimental group was superior to the control group. (1995, p 18-22Warkentin)

- Study (Rabaie, 2002):

This study was conducted in Iraq and aimed to find out the effect of using cooperative learning in the achievement of students of the fifth grade in chemistry and their scientific thinking.

The study consisted of (60) students (30) students represented the experimental group that studied the method of cooperative learning and (30) other students represented the control group studied in the usual way, the groups were rewarded the level of intelligence and the degree of chemistry for the fourth grade and the previous information and age months and scientific thinking, The results showed that the students in the experimental group who studied the cooperative learning method were superior to the students of the control group, which were studied in the usual way (Al-Rubaie, 2002)

Study (Al-Taei, 2012)

The study was conducted in Iraq to find out the effectiveness of cooperative learning strategy in the achievement of students in the first grade intermediate with the principles of chemistry. To achieve this goal, the study was applied to a sample of (50) students of the first grade intermediate in Al-Raya secondary school divided into two groups. The study of the students' chronological age, calculated by months, and the academic achievement of the subject of science for the primary stage, the first experimental group (25) studied the cooperative learning strategy and the second group studied the usual method. Arye of multiple choice was to find sincerity and persistence and applied to the two sets of search results showed no differences statistically significant in the average grades students of the two sets of research for the benefit of the experimental group that studied the

strategy of cooperative learning, the study found a number of relevant recommendations. (Al-Tai, 2012)

The Effect of Brainstorming and the Educational Model of Landa in Achievement and Levels of Engineering Thinking among Middle School Students in Mathematics, Unpublished PhD Thesis, University of Baghdad, Faculty of Education, 2009. And the engineering thinking of the students of the second stage of the average of the province of Basra in mathematics only from the methodological book for the academic year (2007-2008), assuming the hypothesis of the absence of statistical difference D at the level of significance (0.05) between the average scores of the three groups of students in the experiment with test paragraphs etc. (29) for the control group and (31) for the first experiment studied in the brainstorming method and (29) for the second experiment was studied in the form of the educational model of the end after the researcher was rewarded between the groups in Scientific and social levels. The results of the research that the method of brainstorming and educational model have an effective in increasing the achievement of students in the second stage of the average and increase their thinking engineering.

## **Seventh: Research Procedures**

### **Introduction:**

The researcher used the field study procedures to compare the two groups: the first and second experimental and the control group, and used the semi-experimental method, taking into consideration trying to control some of the extraneous variables that may affect the results of the experiment. A preliminary test was done to determine the level of achievement of the two groups. There are statistical differences between the two groups (experimental and control), as well as the homogeneity of the two

groups in terms of achievement level, considering that all students of the two groups are from the same department. In terms of chronological age, most students are between the ages of 18-20 years. The socio-economic aspect is very similar, as a private university, parents of both groups pay tuition fees for this stage.

### **The research sample**

The research was limited to a number of students in the first stage, the English language department, AL-Qalam college, the second group (20) students as experimental group, and the other students in the first stage. The English language department, the pen college, the first group as an officer group, , As an intentional sample of this study

### **Methodology of the study**

The researcher identified two approaches to this study, as follows:

A - The researcher used the descriptive approach to answer the first objective of the study in theory by establishing the educational methods and standards on which the concept of cooperative learning, brainstorming and classroom management is based, as discussed in the theoretical framework of the study.

B - The semi-experimental approach: The researcher identified the effect of the use of collaborative learning and brainstorming for classroom management in the achievement of students as a semi-empirical study, showing the degree of differences of statistical significance that are attributed to the following variables: By analyzing the results of the two groups (experimental and control) based on the weekly tests conducted by the teacher of the courses for the two groups, and knowledge of the degree of variation of the semester as groups (experimental

and control) in terms of the use of cooperative learning method and brainstorming to raise the level of achievement in the experimental group, The students of the control group who practice the traditional education method in the study of the chosen courses themselves in this experiment, the same teacher who taught, and the necessary tests in the same courses for the control group.

**Scheme (1) Experimental design**

Group	Independent variable	Subsidiary variable
Experimental Control	Cooperative learning and brainstorming strategies	Achievement
	Normal	

### **Search and sample community**

The study was limited to a number of students in the first stage, the English language department, AL-Qalam college, the second group, 20 students as experimental group, and the other students in the first stage. ) As a sample for this study.

### **Equivalence of the two groups**

The equivalence between the two research groups was carried out in each of the variables (the age of the students calculated by months and the academic achievement of the subject of education and general psychology of the first semester).

### **The applied procedures for this research**

Search has passed through the following stages:

1. Initialization and preparation stage which included:

A - Teacher training phase: (see Annex 1 and No. 2), which explains the steps followed for this experiment

B - Create an environment and prepare tools for collaborative learning and brainstorming

2 - the application stage which went as follows:

(A - the first week: the stage of application of the experiment and specifically on (15-2-2017) .

B - the second week and the third: the follow-up phase of the experiment

C - The fourth week: the evaluation phase of the experiment that ended on (19-3-2017).

Search Tool:

The researcher prepared a test of achievement based on the content of the subject and the behavioral objectives that were determined in advance. The test map was prepared in Table (1) for the purpose of allocating the test subjects to the parts of the scientific material and for all behavioral purposes in a homogeneous manner.

**Table (1) Testing map**

<div style="display: flex; justify-content: space-between;"> <div style="transform: rotate(-45deg);">behavioral purposes</div> <div>content</div> </div>		Content scale	Level of purposes			Total
			Memorizing % ٤٦	comprehension % ٣٦	Application % ١٨	
chapter	Credit					١٠٠ %



<b>Fourth</b>	8	40	2	3	3	8
<b>Fifth</b>	5	25	3	2	2	7
<b>Sixth</b>	7	35	2	2	1	5
<b>Total</b>	20	100 %	7	7	6	20

In the light of the test map, the tests of the type of "multiple choice" were prepared. Each paragraph contains four alternatives, one of which is the correct answer. The number of test paragraphs reached (20) paragraphs. The stability of the test was 0.85.

### **Statistical methods used in this study**

(40 students) during the period of application of the experiment, which was determined in the applied procedures of this study, was entered into the computer by the researcher, then use the program (SPSS)) to find the statistical averages and standard deviations for each course and the statistical processes necessary for the research operations as follows:

- 1 - the mathematical averages and the standard deviation of each course, to determine the degree of difference between the experimental and control groups depending on the grades of the students themselves.
- 2 - Test (T), to show the differences of statistical significance between the experimental and control groups, according to the variables of the courses for the students themselves.

Eighth: Presentation and interpretation of the results

First: The first question: Are there any statistically significant differences between the first experimental groups and the control group in the achievement level of the students in the foundation of education, as a result of the use of cooperative learning method?

To answer this question, the researcher used the arithmetic mean, the standard deviation and the T test to find out the differences between the two groups. As shown in Table (1)

**Table (1) The value of the arithmetic mean, standard deviation, and T- test value For the experimental and control groups, in the foundation of education**

Group	Number of samples	arithmetic medium	standard deviation	Value of T-test	Statistical equation at the level ٠.٠٠٥
Experimental Control	٢٠	١٢.٥٥	٣.٣٦	٣.٤٠	٠.٠٠٣ Equation group 1
	٢٠	٧.٨٥	٣.٠٤	٣.٤	

It is clear from Table 1 that the value of the averages for the first experimental group was about 12.55 and the standard deviation of 4.36 which applied the cooperative learning method for classroom management by the teacher of the material, during the second semester, while the control group Which did not apply the experience at the same level of study and the academic grade obtained a mean = 7.85 and a standard deviation = 3.04 for the second semester. The comparison between the two groups was used to determine the degree of variance between the two groups. The value of (t) = 3.4 at the level of significance (0.003) is statistically significant, and this indicates the existence of statistically significant differences between the average grades of students in the basis of education, This confirms the success of the experiment in the use of cooperative learning in the management of the classroom, in terms of raising the level of achievement of students. This is in line with the results of the Johnson study (1995), which concluded that the research conducted on

cooperative work compared with Competitive work and individual work usually leads to higher achievement Productivity in the performance of the students themselves.

Second: The second question: Are there any statistically significant differences between the two groups: the first experimental and the control group in the achievement level of the students in the foundation material of education, as a result of the use of brainstorming method?

To answer this question, the researcher used arithmetic mean, standard deviation and T test to find the differences between the experimental groups. As shown in Table (2)

**Table (2) The value of the arithmetic mean, standard deviation, and test value For the experimental groups and the control group, in the educational basis**

Group	Number of samples	arithmetic medium	standard deviation	Value of T-test	Statistical equation at the level ٠.٠٠٥
Experimental Control	٢٠	١٢.٣٥	٣.٣٦	٣.٢٢	٠.٠٠٦ Equation group 1
	٢٠	٧.٣٥	٣.٠٤	٣.٠٢	

It is clear from Table (2) that the mean value of the experimental group reached (12.35) and the standard deviation = 3.22 which applied the method of brainstorming for classroom management by the teacher of the material during the period of experiment for the second semester, That the control group which did not apply the experiment at the same level of study and the

study program obtained a mean = 3.02 and a standard deviation = 3.02 for the second semester.

In terms of comparison between the two groups, the researcher used the T test to determine the degree of differences between them. The value of (T) was equal to (2.90) at the level of significance (0.006), which is statistically significant. This indicates that there are statistically significant differences between the average students' For the benefit of the experimental group, and this confirms the success of the experiment in the use of brainstorming in the management of grade, in terms of raising the level of achievement of students.

Third: The third question: "Are there significant differences between the two groups: the second experimental and the control, in the achievement level of students in general psychology, as a result of the use of cooperative learning method?"

To answer this question, the researcher used the arithmetic mean, the standard deviation and the T test to find out the differences between the two groups. As shown in Table (3)

**Table (3) The value of the arithmetic mean, the standard deviation, and the test value of the experimental and control groups are shown in the general psychology article.**

Group	Number of samples	arithmetic medium	standard deviation	Value of T-test	Statistical equation at the level 0.005
Experi mental Control	٢٠	٨,٧٥	٢,٠٣	٢,٣٥	٠,٠٢٠ Equation group 1
	٢٠	٨٠,	٢.٤٤٧	٢,٢٢	

Table (3) shows that the mean of the arithmetic average is 8.75 and the standard deviation of 2.03 for the first experimental group which applied the cooperative learning method in the classroom management by the general psychology teacher, while the control group that followed the traditional teaching method. For the same material, I obtained an average of 7.80 and a standard deviation of 2.44. To compare between the two groups, the T test was used to determine the degree of differences between the two groups. The value of the test was 2.35 at the mean level (0.020) Indicates that there are statistically significant differences between the average scores of students in general psychology , For the benefit of the first experimental group.

Fourth: The fourth question: "Are there significant differences between the two groups: the second experimental and the control, in the achievement level of students in general psychology, as a result of the use of brainstorming?"

To answer this question, the researcher used the arithmetic mean, the standard deviation and the T test to find out the differences between the two groups. As shown in Table 4

**Table (4) The value of the arithmetic mean, the standard deviation, and the value of t- test of the experimental and control groups are shown in the educational basis**

Group	Number of samples	Statistical medium	Criterion deviation	Value of T-test	Statistical equation at the level ٠.٠٠٥
Experimental Control	٢٠	٨,٦٧	٢,٠٢	٢,٣٢	٠,٠٢١ Equation group 1
	٢٠	٧,٦٦	2.33	٢,٢٤	

Table (4) shows that the mean of the arithmetic mean was 8,67 and the standard deviation of 2.02 for the second experimental group that applied the brainstorming in the classroom management by the teacher of the educational basis. The control group, which followed the traditional teaching method The same material obtained an average of 7.66 and a standard deviation of 2.33. To compare between the two groups, the use of T test to determine the degree of differences between the two groups. The value of the test was 2.32 at a mean level (0,021) Indicates that there are statistically significant differences between the average grades of students in the foundation of education.

Based on the analysis of the semi-empirical research results in achieving the second goal through the application of the experiment, and to achieve this goal, the researcher put the research question for the chosen courses of this experiment and specified in the following courses: (the basis of education and general psychology) There are statistically significant differences which mean that the first and second experimental group is superior to the control group through the use of the course teacher for the method of cooperative learning and brainstorming in the classroom management, which is one of the new topics that started by the pioneers of education to achieve the repercussions of E Positive on the educational process in general.

Thus the main question can be answered.

What is the effect of using cooperative learning methods and brainstorming for classroom management in student achievement?

The current research has shown that there is a clear effect for the practice of cooperative education and brainstorming, which is actually applied in the experiment carried out by the students of the Faculty of Al-Qlalam - English Language Department (1, 2) as

two groups: experimental first and second and the control group. Between the two groups in terms of the existence of clear differences in the general level of students and their scholastic productivity, the spirit of participation, cooperation and brainstorming. The use of the two methods was reflected in the development of classroom performance and management by the teacher of the subjects. The difference was clear between the traditional method practiced by him For the control group, and the method of cooperative learning and brainstorming experimental group first and second, in terms of a sense of students' satisfaction, participation and collective competition among themselves, and the expiry of the quota time without feeling the atmosphere of boredom or a desire to end their time, as opposed to the feeling that appeared on the control group completely.

### **Ninth: Recommendations**

After completing the presentation and interpretation of the results, the researcher recommends a number of recommendations that he deems appropriate:

- 1 - Adopting cooperative learning strategies and brainstorming in the teaching of human subjects in public and private universities.
2. Conduct more research studies on the concept of cooperative learning strategy and brainstorming in the development of classroom management, and develop this concept to the development of the concept in educational management, and its reflection on educational learning in general.
- 3 - Training of university teachers on modern trends in teaching, including strategies for cooperative learning and brainstorming.

- 4 - Proposing cooperative learning methods and brainstorming in the field of educational work, and giving teachers more of the training mechanism for this strategy in leading the classroom.

#### Annex (1)

The stages of teaching the material in a cooperative learning method

The first stage: the distribution of students in the classroom

- Student distribution according to individual differences (excellent, very good, good, average, weak).
- Selecting a leader or coordinator for each group (the coordinator will change in future meetings).
- No more than five students per group.
- The shape of the groups in a round shape.

Phase 2: Distribution Time Management Method

- Ten minutes of brainstorming are given to each group according to the subject of the lesson.
- Ten minutes are given to review the main ideas derived from the groups by commenting on the findings of each group of ideas, taking into account the lack of repetition of these new ideas for the subject of lesson by other groups.
- Record these ideas on the blackboard by the coordinator of each group or by the teacher himself.

Stage 3: The role of the teacher at this stage

- 20 minutes of teaching time for the teacher to highlight the points of the lesson and give explanatory examples according to the explanation to be conveyed to students through the points that students did not present during the review of the main ideas of the lesson and pay tribute to the groups that have the maximum clarification of the subject of the lesson.



- Good pre-preparation by the teacher through his experiences with students in brainstorming and early readiness to answer and clarify points that the teacher expected to be raised by the students themselves.

#### Stage 4: Evaluation and feedback

- The remainder of the lesson time for discussion and dialogue on the ideas derived from the groups as described in the teacher's explanation of the subject of the lesson and to raise students within the groups about some of the questions and comments on the subject of the lesson were not clear in their minds within the small groups during the first round of the quota Comments or additions are provided by the teacher himself.
- During this stage, the teacher tries to know the answer from the students to be the collective answer from the same groups and try to participate most of the students of the groups without looking at the high levels of students.

#### Annex (2)

#### Brainstorming

Students can be trained to use the brainstorming method. Al-Masri (2012: 227) defines Keith Hoover's brainstorming: "It is a set of procedures that means using defense to solve a problem of problems, to gather all the ideas around it, to find innovative solutions, Intellectual technology for creativity and applied imagination ", was used in the labor market and then moved to the field of education, becoming the most popular methods that have attracted the attention of researchers and those interested in the development of creative thought.

#### Rules in brainstorming sessions within groups

This requires the formation of the group, especially in the first sessions of the storm, where Jarwan (1999: 117) focused on four rules to be observed in the practice of brainstorming among individuals, as follows:

1. It is not permissible to criticize the ideas of any member, no matter how ridiculous they seem
- . Encourage giving as many ideas as possible
- . Focus on quantity, by stimulating the increase of 3-4 - ideas are all owned, in the sense that can be derived or installed idea or solution of the idea presented earlier

The steps used to implement the storm sessions

Jarwan (1999, p. 119) pointed out that there are important elements for the success of brainstorming, as a tool of cooperative learning within groups, during the course of the classroom administration.

- 1 - clarity of the problem discussed by the participants and the leader of the activity, before the start of the session
- 2 - clarity of principles and rules of work and adherence by everyone, so that each participant takes his role, and put ideas without comment or insult from anyone.

Teaching experience, seriousness and conviction in the value of brainstorming method between cooperative learning tools, in stimulating creativity and increasing productivity among student groups within the classroom administration.

### **The main results of the study**

There are statistically significant differences between the experimental and control groups in the academic level of the students in the following subjects: the foundations of education, general psychology.

The results of the study also confirmed that there are significant statistical differences which mean that the experimental group surpasses the control group through the use of the material teacher strategies of cooperative learning and brainstorming in the method of classroom management, which is one of the new topics that the attention of the pioneers of education has begun to achieve reflections on the educational process.

The study concluded with several recommendations, the most important of which are: Proposing the design of the idea of using cooperative learning method and brainstorming in the field of educational work, and giving university professors more training on these two types of classroom management methods in developing their educational and educational performance.

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### **Abstract:**

The aim of this study is to find out the effect of using collaborative learning and brainstorming on classroom management in student's achievement. To answer the main question of this study, the researcher formulated several questions, in order to find out: Are there differences of statistical significance between the experimental and control groups due to the achievement level of students in the two academic subjects: the foundations of education, general psychology? The researcher used the analytical descriptive approach and the semi-empirical approach using the arithmetic mean and standard deviations and the T test to analyze the results of the study that were identified in the English language department of the university college in the second semester of the academic year 2016-2017 (the first stage) Fifty-three students for the experimental and control groups excluded three of them to achieve parity between the sample members.



## الملخص:

تهدف هذه الدراسة إلى معرفة تأثير استخدام التعلم التعاوني وتبادل الأفكار على إدارة الفصل في تحصيل الطالب.

للإجابة على السؤال الرئيسي لهذه الدراسة ، قام الباحث بصياغة عدة أسئلة ، لمعرفة: هل هناك فروق ذات دلالة إحصائية بين المجموعتين التجريبية والضوابط بسبب مستوى تحصيل الطلاب في الموضوعين الأكاديميين: أسس التعليم ، علم النفس العام؟ استخدم الباحث المنهج الوصفي التحليلي والنهج شبه التجريبي باستخدام الوسط الحسابي والانحرافات المعيارية واختبار T لتحليل نتائج الدراسة التي تم تحديدها في قسم اللغة الإنجليزية في الكلية الجامعية في الفصل الدراسي الثاني للأكاديمية عام ٢٠١٦-٢٠١٧ (المرحلة الأولى) استبعد ثلاثة وخمسين طالباً للمجموعات التجريبية والرقابة ثلاثة منهم لتحقيق التكافؤ بين أفراد العينة .