

The Effect of Brainstorming in Teaching Critical Reading of Iraqi EFL learners.

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Abstract

This study aims at investigating the effect of using brainstorming on developing reading skills of the third year learners in Diyala University / college of basic education . To achieve the aim of the study, the researcher adopted the experimental design . The sample of the study consisted of (69) students divided into (35) students for the experimental group and (34) students for the control one. The sample is randomly chosen from the first stage.

The researcher designed activities related to reading topics, these activities are based on brainstorming activities which are used in teaching the experimental group, while the traditional method is used in teaching the control one in the first term of the academic year (2015-2016). A reading test is designed and validated to be used as a pre and post test for the two groups of the students. The data are analyzed statistically by using t-test formula to measure the difference between the performance of the experimental group in the pre and post test.

1.The Statement of the Problem

Reading comprehension is a basic communication skill. It enables students to pursue their studies and interest in all fields of knowledge. It is necessary for the EFL students since it brings them to contact with a living language and helps them to think and express themselves both in speaking and writing (Sikiotis, 1981:300). Patching et al (1983: 408) view critical reading as" a set of processes that occur when readers correctly identify valid (versus invalid) instances of argument, reasoning or presentation of evidence in written material". Kurland (2000: 2) points out that critical reading requires the learner to explore an author's purpose, to understand tone and persuasive elements and In Iraq, EFL learners are "word by word" readers and their level of achievement in reading is low (Al-Jubouri, 2003:1). For this, EFL teachers and instuctors must understand the causes of difficulties in comprehension, and help readers to

overcome their problems in comprehending what they read. Brainstorming is often a group exercise in which all students in the class are encouraged to participate by sharing their collective knowledge about a particular subject. It generates far more material than any student is likely to think of his/her own. Students can then utilize any or all of the information when turning to the preparation of the first drafts Murcia (2001:224). Feather (2004: 84) argues that brainstorming enhances the activation of the reader's schema globally; so that they will know in advance about the ideas, vocabulary, culture, grammatical features and genre structures which are most probably met in the text to be read

1.1 Aim of the Study

The study aims at:

-Investigating the effect of brainstorming on EFL learners' ability to critical reading.

1.2 Hypothesis of the Study

The aim of this study will be achieved through verifying the following hypothesis:

-There is significant difference between the mean score of the students who are taught reading comprehension according to brainstorming and that of the students who are taught reading comprehension according to traditional methods.

1.3. The value

The value of the study stems from the significance of learning critical reading as an essential aspect of the process of teaching EFL. Reading is very important to be mastered by EFL learners. This study may also be valuable for teachers of English, teachers trainers, educators, supervisors and EFL learners.

1.4 Limits

This study is limited to first – year students /morning class at the Department of English, College of Basic Education / University of Diyala, during the academic year (2015-2016).

1.5. The Procedures

To achieve the aim of the present study, the following procedures are adopted:

- 1-Selecting a sample of EFL students from first year college students,
- 2-Dividing the selected sample of students randomly into two groups (an experimental group and a control group),
- 3-Designing a test of critical reading and verifying the validity and reliability of the test,
- 4-Pre- testing of the whole selected sample of the study in order to measure the initial level of performance in reading,
- 5-Teaching the experimental group students according to brainstorming, whereas teaching the controlled group students according to traditional techniques,
- 6-Post- testing both groups in reading at the end of the experiment.

1.6. Definitions of the Basic Terms

1.6.1 Effect

Effect means something produced on action or cause which produced usually more or less immediately (Patric, 1971: 40).

1.6.2 Brainstorming

Brainstorming is often a group exercise in which all students in the class are encouraged to participate by sharing their collective knowledge about a particular subject (Murcia, 2001:224).

1.6.3 Critical Reading

Patching et al (1983: 408) view critical reading as" a set of processes that occur when readers correctly identify valid

(versus invalid) instances of argument, reasoning or presentation of evidence in written material".

Section Two : Theoretical Background
2-Brainstorming Process :

Brainstorming is a technique whose purpose is to initiate some sort of thinking process. It gets students "creative juices" flowing without necessarily focusing on specific problems or decisions or values. Brainstorming is often put to excellent use in preparing students to read a text, to discuss a complex issue, or to write on a topic . Brainstorming involves students in a rapid-fire and free-association listing of concepts , ideas, facts, feelings relevant to some topic or context. Suppose you were about to read a passage on future means of transportation . You might ask small groups to brainstorm (a) different forms of transportation, past and present , and (b) current obstacles to to more efficient means of transportation.

The groups' task would be to make a composite list of everything they can think of within the category, without evaluation of it. In brainstorming, no discussion of the relative merits of a thought takes place; everything and anything goes. In this way, all ideas are legitimate, and students are released to soar the heights and plumb the depths, as it were, with no obligation to defend a

concept (Brown,2001 :184-185).According to Murcia (2001:224) brainstorming is often a group exercise in which all students in the class are encouraged to participate by sharing their collective knowledge about a particular subject. It generates far more material than any student is likely to think of his her own. Students can then utilize any or all of the information when turning to the preparation of the first drafts. Get the learners to think of as many words as possible related to a specific topics, for example the topic of the lesson. This can be organized as a team competition. Each team lines up in front of the board, which is divided into sections, one for each team. The first person in each team goes to the board, writes a word in their section, and then goes to the back of the line. Then the second person goes to the board and writes a different word. Each team should write new words on the board as fast as they can until the teacher say time up (Davies,2000: 67).

Technique of brainstorming depends on the capability of human brain to make association. When any science student sees or hears the term “plant” automatically brain associates it with other words like leaves,roots,and flowers etc. The learner sees and hears to the term “city” so cognitive map of his/her mind associate it with buildings, roads, shopping centers, bridges etc. Brainstorming is

an modern conference with particular scenery in order to create a list of ideas that can be used as clues guide students to the growth of the problem. Every student is given the possibility to articulate his ideas and share those ideas with others and support new ideas (Al-blwi, 2006 : 43).

2.1. Brainstorming Teaching Technique

Technique is what actually happens in the classroom. Brown (1995:2) states that technique is a particular strict, stratagem, or contrivance used to accomplish an immediate objective. Brown (2001:16) says that technique is any of a wide variety of exercises, activities, or tasks used in the language classroom for realizing lesson objectives.

Brainstorming is a group creativity technique designed to generate a large number of ideas for the solution of problem. Brainstorming literally means using the term *brain* to *storm* a problem. It is a technique by which a group attempts to find a solution for a specific problem by amassing all the ideas spontaneously contributed by its members. Brainstorming is a technique of applied imagination or creatively (Hollingsworth, 1991:109). The procedure of using brainstorming teaching technique According to Hollingsworth (1991:111) there are series of

steps that should followed in setting up a brainstorming session:

A). Identifying the problem

In preparation for a brainstorming session you should select a specific, as opposed to a general problem. This is extremely important, because a badly designed challenge could lead to lots of ideas which fail to solve the problem. For example: the problem “How should we behave on a field trip?” is too broad. To narrow the problem, two or three sub-problems might be formulated: How should we behave on the bus? How should we behave going to and from the bus? How should we behave at the water station?

When the problem has been reduced to its lowest common denominator, the selected sub-problems are posed as concise, definite question. Questions of what, why, where, when, who and how serve to stimulate the creation of ideas. For example: Why is it needed? Where should it be done? Who should do it? How should it be done?

B) Preparing the group

Give yourself a time limit. It is recommended 25 minutes, but experience will show how much time is

required. Large groups may need more time to get everyone's ideas out. Alternatively, give yourself an idea limit. At minimum, he/she pushes for 50 ideas. But, 100 ideas are even better.

C) Leading the Ideation Session

Explain and write out three basic rules that must be faithfully followed:

- Criticism is ruled out: Judgment of ideas must be withheld until later.
- “Freewheeling” is welcomed. The wilder the idea the better, it is easier to tame down than to think up.
- Quantity is wanted : greater the number of ideas, the greater the likelihood that the ideas of their own, participant should suggest how ideas of others can be returned into better ideas or how two or more ideas can be combined to form still another idea.

D) Utilizing after Thought

Once the time is up, select the five ideas which you like best. Make sure everyone involved in the brainstorming session is in agreement.

E) Processing Ideas

Write down about five criteria for judging which ideas best solves the problem. Criteria should start with the word "should", for example, "it should be cost effective", it should be legal", it should be possible to finish before the end of this month", etc.

F) Implementing Ideas

Each idea a score of 0-5 points depending on how well it meets each criterion. Once all the ideas have been scored for each criterion, he/she adds up the scores.

G) Deriving Generalization

The idea with the highest score will be best to solve the problems. But you should keep a record of all your best ideas and their scores in case best idea turns out not to be workable.

2.2.How to Use Brainstorming

Hayes, John R. (1989 : 132) recommends following these steps of how a group Brainstorming should be done.

- Prepare the environment for the brainstorming to take place. Arrange the students desks in a manner that helps better students contributions.
- Depending on the level of students you can either write the ideas that come from the session yourself or appoint one student to record them.

- The ideas should be noted in a format that everyone can see and refer to. You may use the board or computers with data projectors.
- Define the problem you want students to solve clearly.
- Be sure that students understand that the objective of the session is to generate as many ideas as possible.
- After stating the problem, give students enough time to think the problem over on their own.
- Ask students to contribute their ideas.
- Make sure that you give all students a fair opportunity to contribute.
- Try to get everyone to contribute and develop ideas, including the quietest members of the class.
- Tell students that they may develop other students' ideas, or use other ideas to create new ones.
- Tell students that criticism and evaluation of ideas are banned at this stage because criticism is risky and may stifle creativity and cripple the whole brainstorming process. This uncritical attitude among members of the group is of paramount importance.
- Encourage enthusiasm by providing positive feedback to all contributions without exceptions.
- Give free vent to students creativity and imagination. Let people have fun bringing as many ideas as possible.

2.3.Brainstorming in EFL & ESL classes

Hayes, John R. (1989: 65-66) mentions that In EFL and ESL classes brainstorming can be effective in a wide range of areas of instruction.

A. Prereading

Teachers ask questions that are central for the overall comprehension of the text and students try to give as many answers to them as possible. The questions must involve a wide variety of possible answers.

B-Prelistening

The same as above. Students come up with as many answers to open-ended questions.

C-Prewriting

A topic can be fully brainstormed in an individual or group brainstorming (or a combination of both) to generate as many ideas as possible. At home students use their notes to prepare an outline and write the first draft to be edited in class.

D-Grammar

In order for students understand how grammar works they should explore it instead of having the teacher explaining everything. It would be an interesting experience for students to brainstorm how different structures are used, what their meanings are and how they are formed.

E-Vocabulary

EFL and ESL students are often faced with difficult vocabulary. It is a good idea to teach students how to use a dictionary, but it would be better if students use brainstorming sessions to find the meaning of difficult vocabulary using the context. Again, encourage students to provide their guesses and accept all of them even the wildest ones. Only later with the help of the teacher students try to evaluate them and pick up the most appropriate definitions.

2.4.Critical Reading:

Critical reading means different things to different people. Generally, it refers to that type of reading in which the reader is preoccupied not only with what a text says but how it portrays the subject matter.

Ennis (1962, in Olson and Ames, 1972: 61) says that critical reading means judging or evaluating the correctness of what is being read. Huns (1965: in Olson and Ames, : Ibid) argues that critical reading requires evaluation of printed material with some known standard or norm that relates to content or message of a printed text to determine its accuracy, consistency, truthfulness, value, tone, mood, bias etc. Following Wright's (1977), Patching et al (1983: 408) view critical reading as" a set of processes that occur when readers correctly identify valid (versus invalid) instances of argument, reasoning or presentation of evidence in written material". Kurland (2000: 2) points out that critical reading requires the learner to explore an author's purpose, to understand tone and persuasive elements and to recognize bias.

2.5. The Need For critical Reading

Critical reading has been highly recommended in the literature on the teaching of reading for a number of reasons. Kay (1946: 380).

maintains that critical reading enables the reader "to be able to judge whether this or that bit of information is true, is complete fabrication or is slightly coloured to suit someone's editorial policies". Devine (62: 361) relates critical reading to critical thinking which is the ultimate aim of teaching. Critical thinking can only be developed through various strategies of critical reading. Thus, critical reading is needed in order to develop critical thinking. Olson and Ames (1972 : 65) provide a detailed account of the reasons for teaching critical reading. They argue that critical reading is definitely needed for a student to learn to cope with editorial reporting in television or radio, or in print. He needs to be aware that what is reported or written is coloured by the writer's or editor's interpretation which, in turn, is based on his experience, mood, outlook, or prejudices. Thus, in the world of today where emphasis is being placed on mass communication and propaganda, where facts are interpreted differently, where almost everything is coloured by interest, politics, or prejudice, and where cards tacking and band wagon as well as red herring sometimes prevail, critical reading to distinguish these divergences is mostly needed. In spite of its importance, the teaching of critical reading faces a number of obstacles which are rightly summarized by Olson and

Ames (Ibid : 66- 68) as follows: the use of a single text book, the 'halo effect' attached to the printed word, the desire of the teachers to avoid controversial subjects, the emphasis on conformity, and involvement in emotions and prejudices. These detriments are supposed to be overcome at university level, and emphasis on controversial issues, determining the reliability of the information read and detecting bias and prejudice that colour the facts and opinions should be made instead .

Section Three the Procedures.

3.Experiment

The design of this experiment includes the selection of the two groups randomly. Both groups were submitted to a pre-posttest. The experimental group was taught reading through using brainstorming strategies, whereas the control group was taught reading according to traditional strategies. The scores of both groups were compared to see if there is any significant differences between the two groups or not.

3.1. Population and Sample Selection

The population of the present study is first-year students morning class at the Department of English –College of Basic Education- Diyala University during the academic year (2014-2015). The sample has been chosen randomly from the population mentioned above. It has been found there are two

sections for the first stage at the department of English, they are sections (A) and (B). One of these sections has randomly been selected to be the control group and the other one to be as control group. Section A included (35) students and section B included (34) students Thus the final number of the sample subjects is (69) students. See Table (1).

Table (1) The Number of Subjects

Group	Section	No.	Repeaters	Final No.
EG	A	35	-----	35
CG	B	34	-----	34
Total		69	-----	69

3.2.Equivalence of the Sample

The researcher tried to control some of the variables that may affect the experiment. These variables are : students' ages , parents' education and the students' scores in the pretest. The differences were tested at 0.05, level of significance, using the t-test formula for two independent samples and chi-square formula. It was found out that the subjects of the experimental and control groups were matched on the above mentioned variables since there are no statistically significance differences between the two groups.

3.2.1 The level of Fathers' Education

Chi-square formula is used for two independent samples to determine whether there are any significant differences among the two groups in the level of fathers' education. Educational qualifications are classified as follows:

3.3. The students' scores on the pre- test

To ensure that the sample subjects are equivalent in their previous English language proficiency, the researcher applied the reading test before starting the experiment. The results of the subjects were recorded and statically analyzed by using t-test. Table (2) shows the mean and the standard deviation of each group in English previous learning. The results analyzed indicates that there are no statistically significant differences between the experimental and the control groups at (0.05) level.(See Appendix A).

Table (2) The Mean, Standard Deviation and T-value of the Subjects' Achievement on the Pretest

Group	No.	M	SD	Df	T-value	
					Calculated	Tabulated
EG	35	14.514	3.974	67	0.67	1.99
CG	34	14.235	4.195			

3.4. Validity of the Test

One of the most important aspects which must be considered when selecting or constructing a test is its validity, which can be defined as "measuring the instrument

appropriateness to meet the identified educational needs of the teacher"(Lado, 1964:50). According to McNamara (2000: 133) validity is "the extent to which a test meets the expectations of those involved in its use, e.g. administrators, teachers, candidates and test score users."

3-5 The pilot Administration of the Test

On the 15 January 2016, a pilot administration of the test was carried out. The test was experimentally tried out on a sample of 69 students who were selected randomly from first year students English department –College of Basic Education.

The aims of this application are to:

- 1- Check the time that students need to answer the test,
- 2- Identify the discrimination power of the test items,
- 3- Determine the appropriate time required;
- 4- Discover how test takers respond to the test task;
- 5- Secure the clarity of the tests items, and
- 6- Find out the reliability of the test.

3.6. Reliability of the Test

Reliability is a quality of the test scores which refers to the consistency of measures across different items, test forms, and raters and other characteristics of measurement context (Lado, 1972:330). According to Harmer (2001:322), a good test should give consistent results. In practice, reliability is enhanced by making test instructions absolutely clear, restricting the scope

for variety in the answers, and making sure that test conditions remain constant.

3.6. Instructional Material and Lesson Plan

The instructional material for this study was four passage (A very Dear cat , Pioneer Pilots , Mary had a Little Lamb and The Greatest Bridge) which where selected from the first year RC textbook "Developing Skills". By L.G. Alexander.

Behavioral Objectives:

The behavioral objectives of this study are :

- a. To enable students determine the important ideas from a reading passage while discussing vocabulary, developing ideas and questions.
- b. To enable equal participation of each and every class member, including anyone who be too shy or fearful to participate orally.
- c. To enable students monitor their own learning and thinking.

Section Four :The Results Conclusions, Recommendations and Suggestions.

4. The Results of the Post-test.

The results of the pupils' performance on the post- test reveal that the average score of the (EG) is (19.971) with a standard deviation (SD) of (4.526) which is higher than that of

the (CG) which is (14.205) with an SD of (4.820). The difference between the two averages is statistically significant because the tabulated t-value is (1.99) at the $P>0.05$ and a df of (67) while the calculated value is (5.289). This indicates that there is a clear difference between the reading achievement of the (EG) and that of the (CG). Table (3) below shows the detailed descriptions of the results of both groups on the post-test. (See Appendix B).

Table (3). The Pupils' Results of the Post-test .

Test	Group	No. of Pupils	Mean	SD	Df	Calculated t-value	Tabulated t-value
Production	EG	35	19.971	4.526	67	5.289	1.99
	CG	34	14.205	4.820			

4.1. Conclusions

The following points have been made on the basis of the findings indicated in :

1-Brainstorming strategies proved to be an excellent learning strategies for developing and enhancing students' ability in critical reading .

2-From the results analysis, it is proved that brainstorming strategies helped poor readers to develop their reading skill.

3-Brainstorming helps students to use and apply the information, then share their solutions, thinking and outcomes in a celebration of understanding.

4-Students are engaged in learning.

5-Brainstorming strategies to EFL learners can have a significant positive effect on the retention of new vocabulary by such learners.

4.2. Recommendations

In the light of the finding and the due literature, The researcher recommends the following:

4.3. Recommendations

1-Instructors are advised to encourage students' brainstorming activity because more exposure to reading may enhance expressive , receptive and social communication, as well as overall cognitive development.

2-Instructors are recommended to select critical reading text according to students' background knowledge as well as their needs and interest.

3-Help students become more aware of the fact that brainstorming is a highly interactive process.

4-Adopt and adapt the updated and appropriate methods in teaching critical reading and try to overcome the challenges and difficulties.

4.5 Suggestions for Further Studies

For additional studies in the area of language learning and teaching, the following suggestions are made:

1-Conducting other studies similar to the present study but in other skills of language such as (listening, speaking and writing).

2-A study in other stages is needed, such as primary and preparatory stages.

3-Conducting other studies based on other types of reading.

Bibliography

-Al-Juboury, Najat A. (2000) *A Language Teacher's Guide to Assessment*. University of Mosul, Dar Alkutub for Printing and Publishing.

-Brown.2001. *Teaching by Principles: An Interactive Approach to Language Pedagogy*,2nd Edition. San Francisco: Longman.

-Devine, (1962) " Critical Thinking in the English Class ". Peabody Journal of Education. Vol.39, No.6 : 359-365

-Feathers, K.M. (2004). *Info Text: Reading and learning* . Ontario: Pippin Publishing Corporation.

-Harmar, J. (2001). 3rd ed. *The Practice of English Language Teaching*. Essex: Longman.

Hayes, John R. (1989). *The Complete Problem Solver*. Hillsdale, NJ; Lawrence Erlbaum Associates

Holingsworth, W. (1991). A study of creative problem Solving instruction – a design and assessment in elementary school chemistry courses. *Chinese Journal of Science Educational*. 11, (4), 407-430.

Kay, Sylvia, C. (1946) "Critical Reading: Its Importance and Development". *The English Journal* vol.35 No.7 : 380-8

Kurlan, Dan. (2000) "What is Critical Reading " [www. Critical Reading.com](http://www.CriticalReading.com).

-Lado, R.(1974). *Language Testing: The Construction and Use of Foreign Language Tests*. New York: McGraw –Hill Inc.

Olson, Arthur V. and Wilbur S. Ames. (1972) *Teaching Reading Skills in Secondary Schools*. Scranton : International Education

Patching, William; E. Kameenui; D. Carnine ; R. Gresten and G. Colvin. (1983) "Direct Instruction in Critical Reading Skills". *Reading Research Quarterly* vol. 18 No.4 : 406-418.

Sikiotis,N. (1981) "reading Habits and Preferences at Secondary School Pupils in Greece " *ELT Journal* Vol.89,No.3.

أثر تدريس الصف الذهني على تطوير القراءة النقدية للطلبة العراقيين

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أن الهدف من هذه الدراسة هو قياس مدى فعالية طريقة العصف الذهني في تطوير تحصيل الطلبة العراقيين للقراءة النقدية في اللغة الانكليزية. ولتحقيق هدف الدراسة استخدم الباحث المنهج التجريبي على عينة الدراسة المكونة من مجموعتين متكافئتين من طلبة المرحلة الثالثة- جامعة ديالى- كلية التربية الاساسية- قسم اللغة الانكليزية للعام الدراسي (٢٠١٥-٢٠١٦) وقد تكونت العينة من (٦٩) طالبا" قسمت إلى (٣٥) طالبا" للمجموعة التجريبية و (٣٤) طالبا" للمجموعة الضابطة تم اختيارهم بالطريقة العشوائية. قام الباحث بتصميم بعض الأنشطة المتعلقة بمهارات القراءة و من ثم حساب الصدق بالرجوع إلى المحكمين و حساب معامل الثبات باستخدام t-test formula و بعد انتهاء التجربة, قام الباحث بتطبيق الاختبار البعدي على المجموعة التجريبية و من اجل التحقق من صحة الفرضيات تم استخدام t-test formula لإيجاد الفروق في أداء المجموعة التجريبية في الاختبار البعدي و القبلي بالنسبة لمهارات القراءة حيث أظهرت نتائج الدراسة وجود فروق ذات دلالة إحصائية عند مستوى (0.05) في أداء المجموعة التجريبية في الاختبار البعدي .

