

أثر العصف الذهني على الاستيعاب القرائي

محمد محمود طلال مهيدات^(*)

أستاذ مساعد بقسم اللغة الإنجليزية - كلية الآداب - جامعة الملك سعود

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الكلمات المفتاحية: الاستيعاب القرائي، العصف الذهني، الامتحان التحصيلي، اختبار "الكلوز"، الأردن.

ملخص البحث: تهدف هذه الدراسة إلى استقصاء أثر العصف الذهني على تطوير مهارة الاستيعاب القرائي. وقد تكوّن مجتمع الدراسة من جميع طلاب الصف التاسع في مديرية التربية والتعليم في إربد الأولى للعام الأكاديمي ٢٠١٣/٢٠١٤م، وقد بلغ مجتمع الدراسة ١٠٩٠ طالبا. وقد أُخترت أربع شعب صفية قصدية كعينة للدراسة. وقد عُدّت شعبتان في مدرسة الأمير الحسن الثانوية عينة تجريبية، وشعبتان في مدرسة سعد بن أبي وقاص الثانوية كعينة ضابطة. وقام الباحث بإعطاء اختبارين لعينة الدراسة التجريبية والضابطة (اختبار الاستيعاب لقياس قدرة الطلبة في استيعاب نصوص القراءة) واختبار الـ CLOZE لقياس مهارة الطلاب اللغوية (كاختبارات قبلية وبعديّة). تم تطبيق تحليل التباين لمعرفة ما إذا كان هناك فرق ذو دلالة إحصائية بين أداء المجموعة التجريبية والضابطة ($\alpha=0.05$) في الامتحان التحصيلي. وقد أظهرت نتائج الدراسة فرقا ذو دلالة إحصائية ($F=78.636$ $\alpha=0.05$) لصالح المجموعة التجريبية. وقد خلصت الدراسة بمجموعة من التوصيات لكل من وزارة التربية والتعليم ولمدرسي اللغة الإنجليزية على حدّ سواء.

(*) يتقدم الباحث بجزيل الشكر والتقدير لمركز البحوث في كلية الآداب بجامعة الملك سعود لتمويل هذا البحث.

- Ganji H., Sharifi, H.P., & Mir-Hashemi, M.** (2005). The Effect of Brainstorming on Enhancing Creativity in Students. *Education Quarterly*, 21(1), 89-112.
- Jacobowitz, Tina** (1998). Using Theory to Modify Practice: An illustration with SQ3R. Johnson, P. (1982). Effects on Reading Comprehension of Building Background knowledge. *TESOL Quarterly*, 16 (4).
- Konopack, Bonnie C (1987). "An Integrated communication Arts: Approach for Enhancing Students' learning in the Content Areas". *Reading Research and Instruction* 26(4), 275-289.
- Kaufman, M.** (1992). Enhancing Reading Comprehension and Critical Thinking Skills of First Grade ESOL Students through the use of semantic Webbing. Educational Specialist Practicum, *Doctoral Dissertation*. Nova University, Dissertation Abstract International, 43(6)2041A.
- Li, H., & Wilhelm, K. H.** (2008). Exploring pedagogical reasoning: Reading Strategy Instruction from Two Teachers' Perspectives. *The Reading Matrix*, 8(1), 96-110.
- Loew, Helen Z.** (1984). Foreign Language Annals, 1, No. (4), *Developing Strategic Reading Skills*.
- Lynch Marion E.** (1985). "Right Brain Activities to Improve Analytical Thinking". Paper Presented at the Annual Meeting of the International Reading Association (13th, New Orleans, LA, May 5, 9).
- McNeil, John D.** (1992). *New directions for classroom practices*, (3rd Ed). Harper- Collins Publishers. New York.
- Ministry of Education** (1995). *Brainstorming a Practical Program*. Education Training Center. Amman.
- Osborn A.** (1963). *Applied Imagination: Principles and Procedures of Creative thinking*. Scribner's. New York.
- Perry, Marie, J.** (1991). The Effects of Peer Tutoring Intervention Program on the Reading Levels of Underachieving fifth Grade Students. MS Practicum, Nova University. *Dissertation Abstracts International*, 43
- Qudah, Falah.** (1987). *The Effect of Background knowledge on Reading Comprehension*. Unpublished M.A. Thesis, Yarmouk University, Irbid.
- Rao, Z.** (2007). Training in Brainstorming and Developing Writing Skills. *ELT Journal*, 61(2), 100-106
- Rawlinson, J. Geoffrey.** (1981). *Creative Thinking and Brainstorming*. England: Gower Publishing company LTD.
- Richards, Tudor.** (1990). *Creativity and Problem Solving at Work*. Gower Publishing Company Limited. England.
- Schunk DH** (2003). Self-Efficacy: Influence of Modeling, Goal Setting and Self Evaluation. *Reading & Writing Quarterly*, 2003 - Taylor & Francis
- Stein, I.** (1995). *Stimulating Creativity*. (Vols. 1 & 2). New York: Academic Press.
- Suhor, Charles** (1983). *Thinking Skills in the English Language Arts*. Teaching Guide Project Description, Illinois, U.S.A.
- Venkateswarn S.** (1995). *Principles of Teaching English*, Vikas Publishing House. PVT. LTD. Delhi.
- Walter, C.** (2007). First-to second-language reading comprehension: Not transfer, but access. *International Journal of Applied Linguistics*, 17(1), 14-37.
- Widdowson, H.** (1979). *Explorations in Applied Linguistics*. Oxford University Press.
- Widdowson, H.** (1979). "A Process Orientation in ESL Writing". In Carleton Papers in Applied Language Studies, V.1: Carleton University, U.S.A.
- Woods, Devon.** (1984). "A process Orientation in ESL Writing". In Carleton Papers in Applied Language Studies, V. 1: Carleton University, USA

learners to give as many ideas as possible and it provides a good atmosphere for cross- fertilization. Furthermore, criticism and evaluation are postponed while applying this technique. This postponing activates the learner's mind and encourages him to generate new ideas. The participants may produce some wild ideas as everyone has own cognitive structure and stretches his imagination for further and more novel ideas. The teacher's role here is to ask the participants to change these wild ideas into workable and useful ones.

Findings of the Study:

This study aims at finding the impact of brainstorming on reading comprehension. The findings of the study are presented in the light of its hypothesis to seek whether there are any significant differences ($\alpha=0.05$) between the scores of the brainstorming group and the traditional group in terms of students' achievement in reading comprehension.

The hypothesis of the study says' " there is no significant differences ($\alpha=0.05$) between the a achievement of the ninth grade students who are taught reading comprehension through the use of brainstorming and those who are taught reading comprehension through the use of the traditional method.

Table(2) shows the mean scores and the standard deviation of student's achievement grades in methods, brainstorming technique and traditional technique.

Table (2). Mean and Standard Deviation of the Post Achievement Test

		X	SD
Experimental	Post test –	11.6	5.42
Control Group	Post-test	14.07	7.14

Table (2) shows that there are differences between the mean scores of the experimental group and the control group. In order to investigate the level of significance of these differences, an analysis of covariance is employed.

Table (3) shows the result of this analysis.

Pretest Results

Source of Covariance	Sum of squares	DF	Mean Squares	F	Sig. Of F
(pretest)					
Covariate Variable	1655.792	1	1655.792	94.784	.000
Exp. Vs Control group	1373.704	1	1373.704	78.636	.000
Residual	2026.413	116	17469		
Total	6019.462	118			

Table "3" shows that the mean of the experimental posttest is significantly higher from the mean score of the control group. In addition, these figures in table "3" show the mean scores and the standard deviation of the doze test, the pretest and the posttest. Furthermore, it should be pointed out that the value of "F" is highly significant. F-78.636. Its significance is .000.

Recommendations:

This study reveals that brainstorming is an effective and a significant technique in developing reading comprehension. The following recommendations can be helpful if taken into consideration: English teachers should stimulate the student's background knowledge about the topic that they present before reading it. This stimulation of the background knowledge is achieved through asking the students personal questions about the topic .This would be the actual use of the brainstorming technique. Also it is recommended that a study should be carried out on females from different classes to see again if the proposed technique will lead to the same positive results which are obtained from this study.

References:

- Anderson, R. John.** (2000) .*Learning and Memory*. John Wiley and Sons, Inc. New York.
- Angeli, C., & Valanides, N.** (2009). Instructional Effects on Critical Thinking: Performance on ill-defined Issues. *Learning and Instruction*, 19, 322-334.
- Bermudez, Andrea B. & Parter, Doris L.** (1998). "Evaluating the Effectiveness of Writing on the Comprehension and Retention of Content Reading in Bilingual Students". Paper presented at the 17th Annual National Association for Bilingual Education Conference, 27-1 May 1988, Houston, and Texas.
- Britton, B.K.; Van Dusen, L.,Gulgoze, S., & Glynn, S.M.** (1989). "Instructional Texts Rewritten by Five Expert Teams: Revision and retention improvements" *Journal of Educational Psychology*,81(2),226-239.
- Brown, A., Education Campaign, J. & Day,J.** (1981)."Learning to Learn: on training students to learn from texts." *Educational Researcher* 10 14-12.
- Collado,G** (1991). Effects of Brainstorming, Criteria-cued and Biociation Instruction on Creative Thinking with Words. (Doctroal Dissertation, University of San Francisco, 1991). *Dissertation Abstract International* 52(12) 4201A.

Furthermore, Lynch (1985) has introduced the notion of "right brain" activities to bring a balance into the classroom. The clustering technique, which was used in that study, involved brainstorming. The target group was processing information in a more balanced way by aiding in their perception, understanding, and the ability to analyze and draw conclusions.

Moreover, the findings of this study are supported by Suhors's (1983). He has conducted his study on teaching students critical thinking through writing. Brainstorming activities were presented to the students. The results of his study have shown that the use of brainstorming activities helps students refine and organize their ideas and help them generate their own thoughtful questions about their writing.

Other studies like (Collado, 1991) have introduced more findings which supported the positive of brainstorming. The brainstorming technique – with other techniques – was used in the study. The results showed that brainstorming instruction and criteria – cue instruction were effective in increasing ideational fluency and originality. Besides, brainstorming instructions produced a more powerful effect on ideational fluency than do criteria-cue instruction.

Finally, Woods (1984) used brainstorming to investigate some strategies to make writing process easier. The results of the study indicate that brainstorming is easier than other techniques. It enabled students to write clearly, effectively, and with better reliability.

The use of brainstorming, as shown in all these studies, has led to positive results and developed the level of comprehension. We should bear in mind that comprehension is an act of the mind or a power of understanding. It is also considered as an exercise which aims at improving or testing one's understanding of a language "written or spoken". The achievement of good comprehension is affected by different factors. Focused attention, for instance, is necessary for a learner to comprehend a resented text well. When the learner focuses his attention and carefully listens or reads the text, he receives a clear and thorough instruction from the instructor's text. Clear instructions are very vital for the gist of the text. Besides, the high motivation is another factor that leads to a better comprehension. On the one hand, eagerness and this affects his attitude towards the text, on the other hand, the learner's attitude towards the learning process. In addition, the readability of the text is another important factor. It has been provided that the writer's message, the learner's prior knowledge, and the readability of the text play together a major role for achieving a better comprehension.

Moreover, the environment, the good text etc. are all very essential psychological factors for achieving a good level of comprehension.

But if we roughly assume that all these factors are available (i.e. good text, a good environment, a good attention, and a positive attitude towards the text etc.) will the use of brainstorming add in developing comprehensions?

First, brainstorming increases the participation of the learners and increases the learner's role because the number of ideas is counted and this is one of the main principles of this technique. Besides, it provides learners with high motivation towards the topic and this is due to suspending judgments and freewheeling. We should bear in mind that brainstorming is defined as a technique used to stimulate the ideas available in the learners' mind towards any presented topic. This stimulation is made when this technique is applied. The role of the teacher is to stimulate the information available in the long-term memory of the learner. Anderson (1995) defines memory as "the relatively permanent record of the experience that underlines learning".

When recalling the information from the long-term memory, a kind of processing takes place for this information in the short-term memory. Of course, short-term memory does not last for more than 20-30 seconds for normal subjects in the absence of rehearsal. So, recalling the information from the learner's background knowledge, processing this information, adding the necessary new ideas, rehearsing them, and then storing the new knowledge and the background knowledge again in the long-term memory is to be processed.

Besides, one of the principles of brainstorming is "quantity breeds quality" – go for more ideas. This is the aim of brainstorming sessions to give as many ideas as possible. It is an open-ended domain. This open-ended issue releases the learner's brain to produce more ideas. Every participant has the right to hitchhike each other's suggestions and to build in a positive way on that notion in order to come up with new ideas; a kind of activation to mind. "The idea goes beyond any old thought that comes into consciousness", says Richards (1990). It is the results of somebody's interpreting or making sense of observed facts or feelings.

Furthermore, postponing evaluation and criticism is very essential while running a brainstorming session. This encourages participants to generate ideas and compete with each other to give some new ones.

In addition, when students see each other, that encourages them to take the matter (topic) more seriously and every one participates and insists on playing a role while performing the brainstorming session.

We should bear in mind that the use of the brainstorming technique stimulates the ideas available in the student's mind and develops the learner's prior knowledge. Besides, it encourages the

first directorate of education in the academic year 2013/2014. The sample of this study consists of four sections, which were selected deliberately. Two sections, representing the control group, were from Saa'd bin Abi Waqaas secondary school and the other two sections representing the experimental group were selected from Al-Amir Hassan Secondary School. Table (1) below shows the distribution of the sample

Table (1). Sample of the Study

	Name of School	No. of Students	Total
Experimental Group	Al-Amir Hassan Secondary School	Section(A) 26	56
		Section (B) 30	
Control Group	Saa'd bin AbiWaqas Secondary school	Section (A) 33	63
		Section (B) 30	
Total			119

Research Instruments:

The researchers used the following instruments:

1) A comprehension multiple choice tests. 30-item multiple-choice test which was constructed with four distracters for each item. The purpose of the test is to measure the subjects' comprehension of the reading passages. The test consists of five reading passages. For scoring the test one point was given for each item. To establish the content validity of the tests, two procedures were used. The first was to give the test a group of TEFL specialists, and the second was to find out the correlation between the comprehension test and the cloze test. The cloze test was given to the students to measure their reading ability and their overall language proficiency.

The correlation value between the comprehensions test and the cloze test is 0.7636. This value is significant and that means there is a very close relationship between the two tests. The cloze test is efficient enough to test the students' achievement.

To establish tests reliability, a pilot study was conducted on fifty male ninth graders from Hamza bin Abdulmutalib preparatory School. The obtained reliability coefficients are computed using Cronbach alpha formula. The results are as follows:

- a. The reliability of the reading comprehension multiple test is (0.77).
- b. The reliability of the cloze test is (0.885). Besides, the correlation between the two tests has been computed, too, and it is (0.7636).

After "10" weeks of using the brainstorming technique with the experimental group and traditional technique with the control group, the two tests were administered again as post-tests to both groups.

Arrangements were made in both schools for the researcher to apply the study. The researcher gave two classes a week for each group.

Discussion and Recommendations:

The purpose of this study is to investigate the impact of brainstorming on the development of reading comprehension. The findings of the study reveal that there is a statistically significant difference ($F=78.636$) in the achievement of the experimental group ($\alpha = 0.05$) when taught reading comprehension through the use of brainstorming. The mean of the scores of the target group (10.07) is higher than the mean of the scores of the control group (7.14).

One way of interpreting the preceding result is that the experimental group has gained advantage from the use of brainstorming through the ten-week application of that technique. The positive results, which reflect this advantage, are clearly seen in the findings of the study, which are based on the analysis of covariance

Once more, brainstorming is defined as a kind of stimulation of the ideas in the learners' mind regarding any presented topic. These ideas are similar to the background knowledge of the reader. It should be marked that the learner employs his experience and his background knowledge to extract the intended meaning. The interaction between the reader's prior knowledge and the text affects the level of comprehension. If the background knowledge is totally lacking, comprehension will suffer. The findings of the present study are supported by the findings of the other similar studies. Kaufman (1992) in his study entitled "Enhancing reading comprehension and critical thinking skills" has used the brainstorming technique. He has shown how this technique improved the reading comprehension of the learners. Perry (1991) in his study entitled "investigating the effects of peer tutoring. The results of the use of brainstorming have indicated that learners showed great progress in developing and strengthening their problem solving skills. Besides, the brainstorming sessions have produced thoughtfulness, insightfulness, and introspection among the target group. Bermudez (1988) examined the effects of brainstorming and clustering on reading comprehension. The performance of the target group was significant in the comprehension measure. In addition, Stein (1995) has investigated the interest that reading arouses among students. The use of brainstorming has led to positive attitudes towards reading and improved the writing skills of the subject.

In addition, Konopack (1987) has also investigated the use of integrated communication arts to facilitate comprehension. Brainstorming was also used. The level of writing of the experimental group was high and better than the other groups.

successful one, "seats for the participants should be arranged in a U-shape to allow cross-fertilization amongst the group, rather than the more standard classroom shape" (Rawlinson, 1981). This shape helps students to speak freely when they see each other and to take the matter seriously. This type of session helps in passing immediate feedback from each of the participants. This setting also helps the teacher to manage and control the session better. As stated earlier, no local studies have been conducted to investigate the impact of brainstorming on reading comprehension. However, there are several foreign studies, which investigated the effect of brainstorming on reading comprehension in the elementary stage, in the preparatory state and some at the high school. Other studies addressed university or college students.

Rao (2007) has conducted a study on students who were in their second year at a Chinese University. He investigated the effect of the brainstorming technique on their performance in writing. Two groups were trained on using this technique while writing while a third group did not use this technique. The first two groups' writing was assessed with the third group who completed the pre- and post-study task. The data showed that clear instruction of brainstorming strategy had a considerable influence on the writing performance. The study also showed that the students felt positive about the brainstorming technique.

Kaufman (1992) has conducted a study to improve students' reading skills. The target population consisted of either students randomly selected from a first grade ESOL class of twenty-two students in one inner-city school. The teaching techniques of semantic webbing and brainstorming were used to improve the students' reading skills.

Results show some behavior changes including improved skills in critical thinking, increased brainstorming for problem solving, and better interpersonal communication. The general conclusion of this study indicates that the brainstorming technique is found to be effective.

Perry (1991) investigated the effects of peer tutoring intervention program on the reading levels. The sample consisted of "34" underachieving fifth grade students in Southwest. Students were provided with supplementary reading instruction four times a week over "12" weeks. The students have also participated in weekly brainstorming sessions with the researcher. Results indicate that the target group made gains in reading levels, self-esteem, and on English daily assignments.

Bermudez, et al (1988) examined the effects of brainstorming and clustering on reading comprehension. The subjects are "36" bilingual students of English as a second language in Houston,

Texas. A t-test for non-independent means indicated that the achievement of the experimental group (i.e., brainstorming and clustering) was significantly higher on the comprehension measure.

Suhor (1983) conducted a study aiming at teaching students critical thinking through writing. A warming up technique was needed as part of brainstorming to activate the subjects who students in general "for all levels" are starting from seven to eleven. Results indicate that the brainstorming activities and sample essays helped students refine and organize their ideas and helped students generate their own thoughtful questions about their writing.

We can conclude that the use of brainstorming improves students' comprehension, their academic performance, and their basic skills in reading. It had demonstrated an increased level of positive self-concept and helped students to make decisions and solve problems. Besides, brainstorming helped students recognize their own prior knowledge on the subject and learn from hearing each other's responses. Finally, brainstorming seems to lead to an increase in the level of comprehension.

Significance of the Study

It should be emphasized that this study is conducted to shed light on the importance of developing reading comprehension. In view of the fact that students' achievement in reading comprehension is still rather low. Although the reading comprehension skill has been given appropriate weight and time in the English curriculum, the achievement of the student's in this skill is still far from being satisfactory. The researchers believe that, although the content might be relevant both linguistically and topically, the method of instruction is one of the main factors responsible for the low achievement. It has always been observed that the learner's achievement in reading comprehension is rather low. As a result, the researchers believe that through the use of different teaching reading comprehension, the brainstorming.

Since brainstorming stimulates the learners' ideas and activates their minds regarding any presented topics, this study is believed to address this serious problem.

Hypothesis of the Study

The hypothesis of this study says "the achievement level of ninth graders will not differ significantly ($\alpha=0.05$) when using brainstorming as a technique of instruction or when using the traditional method.

Methodology and Procedures:

The population of the study consists of "1090" ninth grade students enrolled in "48" sections in Irbid

words the writer makes presuppositions about his audience. b) Create integration of the reader's prior and new knowledge into which he believes versus knowledge that is not available to the reader. Furthermore, readers seek printed material in order to meet a variety of needs, to solve problems, to further their interests, to seek knowledge to satisfy their curiosity. Etc. At the same time, we should bear in mind that the reading comprehension process is not passive but rather active and interactive, in which the reader interacts with the text. The reader employs his experience and prior knowledge to get the meaning and those are behind the reader's comprehension. "Learning is an active, constructive, and goal-oriented process that is dependent upon the mental activities of the learner" Brown, et al (1981).

Besides, Schunk(2003) defines reading as "a psycholinguistic process in which a reader uses a variety of skills to infer the writer's intended meaning". Furthermore, Jacobwitz (1988) says, "reading is a process of confirming predications about meaning. It is interactive in nature; readers select appropriate cues from the text in order to fulfill their purpose". Reading is more than a linguistic skill; it is also a general cognitive skill (Walter, 2007), Li and Wilhelm (2008) consider reading as a source of enjoyment for individuals.

Finally, "Widdowson (1979) says that "reading is not a reaction to the text, but an interaction between the writer and the reader mediated through the text". The reader's prior knowledge and familiarity with the topic are main factors that determine the level of readability on which reading comprehension depends.

As seen from all of these definitions, we can conclude that reading as a process which involves the recognition of printed or written symbols which serve as stimuli for the recall of meaning built up through manipulation of concepts already possessed by the reader. Besides, it is obvious that, the reader is the one who brings meanings to the text. These meanings are built up through the past experience the reader possessed. Loew (1984).

Brainstorming:

Brainstorming is considered the best and most widely used creative technique. Brainstorming is defined as "a technique, which is used in order to stimulate the ideas available in the student's mind about a certain topic". Besides, the sessions of brainstorming are defined as "a means to get as many ideas as possible from the group taking part in a short period of time" (Ministry of Education, 1995). The definition ties in well with that provided by (Rawlinson, (1981), Ganji, H. (2005), Sharifi H.P. (2005) & Hashemi, M., Angeli &Valenides(2009) who view brainstorming as a means of getting a number of ideas from a group of people in a short

time ". They then add "it is a wide- ranging, far reaching activity, and seeking to generate ideas". It should be understood that the ideas, which are suggested by the group, range for the brilliant ones to the totally wild, silly and useless ones. If we want a successful brainstorming, it should depend on the application and enforcement of some described guidelines. Osborn (1963) and Rawlinson (1981) have laid these guidelines which are (suspend judgment, free-wheeling is welcomed, quantity is wanted, and combination and improvement are sought". These four guidelines are important for applying the brainstorming technique. The session of brainstorming consists of a number of stages, which are:

- Statement and discussion of the problem. In this stage, participants should know some details about the topic or problem. This knowledge is gained either by preparing the topic in advance or by the teacher himself providing the participants with some details before starting the brainstorming session.
- Restatement of the problem. In this stage participants are to identify as many different facets of the problem as they can. Each facet is phrased in terms of " How to do something .This phrase has influence qualities in stimulating the flow of restatements, especially when each restatement includes the words 'How to'.
- Selecting basic restatements have been written down. The next step is to choose one or two restatements and be presented a lead- in to the brainstorming session. After being presented, "they are written on the board prefacing them with the words, in how many ways can we..... This wording is important as it takes the participants from the restatements to solution" Rawlinson (1981).
- Warming- up session. This step is a short, not more than five minutes, in which participants throw out ideas. "The key phrase is 'other uses for. Example, other uses for a dining room table, a cigarette box, an ashtray,etc. "Rawlinson(1981)
- Brainstorming: At the start of the brainstorming session, the leader reads the restatements, which have been written up on the board, and calls for ideas. This flow of ideas should be fast and every idea is to be written down by the leader himself or by an assistant.
- Wildest idea: sometimes the session ends with the most foolish idea and attempts to turn it round into some more useful ideas. The wildest idea may lead to some excellent ideas, which had not been thought of during the brainstorming session "(Rawlinson, 1981).

These stages are essential for running a brainstorming session and in order to gain a more

Reading Comprehension: Impact of Brainstorming

Mohammed Mahmoud Talal Mohaidat¹

Assistant Professor, Faculty of Arts, English Language and Literature, King Saud University

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Abstract: This Study aims at investigating the impact of brainstorming on the development of reading comprehension. The population of this study consists of all ninth graders in Irbid first directorate of education for the academic year 2013/2014, totaling of (1090). Four ninth grade sections were deliberately selected as the sample for this study; two sections, (the experimental group from Al-Amir Hassan Secondary School, two sections (the control group) are students from Saa'd bin Abi Waqas Secondary School. The researcher administered two tests: a comprehension test to measure students' comprehension of the reading passages, and a cloze test to measure students' language proficiency. An analysis of covariance was used to find out if there was a significant difference between the achievement of the experimental group and the control group ($\alpha=0.05$). The findings of the study show that there is a significant difference ($\alpha=0.05$) $F= 78.636$ between the performance of the experimental group and that of the control group on the achievement test. This study has some recommendations for both the Ministry of Education and the teachers.

Introduction

Of all language skills, reading is the most necessary for independent learning. Through reading, students can gain access of further knowledge, both about the language and about other subjects. It should be emphasized that reading comprehension is a problem that most learners of English as second language (ESL) face, because of the many variables that affect reading comprehension activities. So, some studies were conducted on readability. Venkateswarm (1995) sees readability "as a term that refers to text types of styles of writing that people find attractive and hence easier to read than other kinds of writing." It's believed that text complexity is behind low reading comprehension. Text complexity is something that has relationship with the variables that affect the comprehension of the text". These variables are grammatical structure, sentence length, and vocabulary. Others have a different point of view, they consider the number of the new concepts introduced in the text, difficulty and novelty of the subject matter, the nature of the topic, and the either style to be behind poor comprehension", Qudah (1987). Some texts were revised in order to reduce problematic text features and assess the effects of

such revised texts on students' comprehension performance. "In such studies, the revised texts have produced better student comprehension" Briton, et al (1989). Besides, cognitive research findings have shown that the nature of the text could partially contribute to comprehension difficulty. Venkateswarm (1995) has described reading as "a psycholinguistic guessing game", which means that the learner has to interact with the text order to get meaning. The meaning lies neither in the text nor in the reader, but in the interaction between the two. This implies that reading is a two-way process which involves both the reader and the writer. To get the meaning, which lies there in the print, the reader has to interact with what has been included by the writer. One should not look at reading as a writer's own matter, but the reader should interact with what is written and contribute a great deal to the reading process. It should be pointed out that these texts should be comprehensible to people reading at some specific level of reading. "It is necessary to use what readers already know in order to understand the text that the knowledge they have, can help in reading" McNeil (1992). This is related to: a) what the writer needs to know about the reader's background. In other