أثر استخدام إستراتيجية العصف الذهني في تحسن مهارة الكتابة و التفكير الناقد لدى الطلبة العراقيين المتعلمين اللغة الانكليزية كلغة أجنبية

م.م.مصطفى مخلف حماد

وزارة التربية

العراق

البريد الالكتروني: mustafahammad856@gmail.com

الخلاصة

تهدف هذه الدراسة إلى تطوير المعرفة و الاستجابة للتطورات والتحديات في جميع مجالات الحياة. ويتناول أحد الجوانب في تدريس اللغة الإنجليزية كلغة أجنبية في محاولة لإعداد الطلاب العراقيين ليكونوا قادرين على المواجهة مع تلك التحديات من خلال اعتماد التقنيات المناسبة للتفكير والتعلم. العصف الذهني هو واحد من هذه التقنيات التي يمكن استخدامها مع أي أساليب تقليدية مناسبة للتعلم والتدريس. من خلال العيش في عصر الانفتاح والعولمة ، يمكن للطلاب أن يكونوا مستعدين لمواجهة التحديات الحالية والمستقبلية من خلال السماح لعقولهم بتوليد المفاهيم والأفكار من خلال تقنيات محددة للعصف الذهني وأنماط مختلفة من التفكير الناقد. وبالتالي ، سيتم تمكين الطلاب لتحقيق فهم المعرفة وفقا للمشاكل اليومية. وهذا يتطلب توظيف المعرفة في حل المشكلات في بيئات معينة ، وتفعيل العقول لتطوير قدرتها على التفكير ، والعصف الذهني ، والابتكار والإبداع. في الواقع ، يعتبر العصف الذهني حلاً عمليًا لمشاكل الطلاب في مهارة الكتابة وإستراتيجية التفكير الإبداعي. تحاول هذه الدراسة دراسة تأثير إستراتيجية العصف الذهني في تحسين مهارة الكتابة والتفكير الناقد بين الطلاب.

The Effect of Using Brainstorming Strategy in Improving the Skill of Writing and Critique of Thinking at Iraqi EFL Students

Assistant lecturer
Mustafa Mukhlif Hammad
Ministry of Education
Iraq
Email: mustafahammad856@gmail.com

ABSTRACT

This study aims at developing knowledge in response to developments and challenges in all fields of life. It tackles one aspect in teaching English as a foreign language trying to prepare the Iraqi students to be capable of confrontation with those challenges through adopting appropriate techniques of thinking and learning. Brainstorming is one of these techniques that can be used with whatever suitable traditional methods of learning and teaching. Living in the age of openness and globalization, students can be well prepared to confront the present and future challenges by allowing their minds to generate concepts and ideas through specific techniques of brainstorming and different styles of thinking critique. Hence, students would be enabled to achieve knowledge understanding in accordance with the daily problems. This requires employing knowledge in problems solving within certain environments, activating the minds to develop their ability of thinking, brainstorming, innovation and creativity. Actually, brainstorming is regarded as a practical solution of students' problems in the skill of writing and the strategy of creative thinking. This study attempts to examine the effect of brainstorming strategy in improving the skill of writing and critical thinking among students.

1. Introduction:

The improvement and progress are the norm of every aspect of life, and knowledge is no exception. Hence, it is necessary to adopt new techniques in learning and teaching English as a foreign language so as to train students on different thinking styles. Brainstorming is one of these techniques. This term was proposed by Dr. Alex Osborn in 1953 who defined it as "an organized way to allow the mind to produce ideas without getting bogged down in trying to judge the value of those ideas at the same time" (Kirk & Spreckelmeyer, 1993, p. 85). Osborn developed brainstorming to produce ideas without inhibition.

Students could be prepared for present and future by achieving knowledge understanding in relation with the knowledge of communities. This requires employing information about the environment leading to developing the ability of thinking, innovation and creativity (Al-Daoud, 2004). Brainstorming strategy has been regarded as a practical solution to this issue.

1.1. Questions of the Study:

As a response to the international trend of developing the creative thinking, and due to the fact that the role of the teacher had been evolved to be a trainer and facilitator, it is requisite to accomplish new teaching methods such as brainstorming. The current study attempts to answer the following questions to achieve the objectives of study guiding the collection and analysis of data:

- Does brainstorming have a significant effect in improving the skill of writing for EFL students?

- Does brainstorming have a significant effect in improving the critique of thinking for EFL students?

- Is there a significant effect of using brainstorming strategy in improving the skill of writing and critical thinking?

- Are there any statistically significant differences in the means of the skill of writing post-test between the experimental group (taught by brainstorming strategy) and the controlling group (taught by traditional strategy)?

- Are there any statistically significant differences in the arithmetic means of the critical thinking post-test between the experimental group and the controlling group ?

- Are there statistically significant differences in the arithmetic means of writing skills and critical thinking post-test between the experimental group and the controlling group due to the impact of gender variable ?

1.2. Hypotheses of the Study:

The current study attempts to examine the following hypotheses to answer the questions of the study:

- There is a significant effect of brainstorming in improving the skill of writing for EFL Students?

- There is a significant effect of brainstorming in improving critical thinking for EFL Students?

- There are no statistically significant differences in the arithmetic means of writing skill post-test between the experimental group and the controlling group?

- There are no statistically significant differences in the arithmetic means of critical thinking post-test between the experimental group and the controlling group?

1.3. Objectives of the Study:

The main objective of the study is to examine the effect of using brainstorming strategy in improving the skill of writing and critical thinking of EFL Students. Brainstorming is viewed as an effective implement in creative problem solving. Its popularity can be traced back to the pervasive need to enhance the productivity of students.

1.4. Importance of the Study:

The prominence of this study emerges from the idea that the variables represented in brainstorming strategy would enhance the ability of students in the skill of writing and creative thinking. Using programs based on brainstorming might develop both writing skill and creative thinking among students. The study aims at helping teachers to employ brainstorming strategy to enable students generate creative thinking and enhance their writing skill.

1.5. Limitations of the Study:

The study has a number of limitations:
- The generalization of the findings of this study will be limited to the EFL students at Erbil Directorate in the first semester at the school year 2016-2017.
- Evaluation of students' skill of writing and creative thinking will be restricted to the chosen strategies adopted by the researcher.

1.6. Previous Studies

Various researchers tackled the relationship existing between brainstorming strategy and its role in enhancing EFL students' motivation.

(Eng et al, 2016) investigated the impact of brainstorming as a pre-reading strategy on reading comprehension ability of Malaysian EFL learners. The study used an experimental design with fifty students aged between 12 to 18 years at intermediate level and considered homogenized. It was given to 70 students at Asian EFL Academy Language Institute in Pinang, Malaysia. The results of the proficiency test confirmed the homogeneity of the participants regarding their reading comprehension ability. Then, the researcher divided the students into two groups, controlling and experimental. Experimental group received treatment for a given period of time. At the end of the specified period of treatment both groups received a delayed test. None of the groups had any previous experience in brainstorming strategies. The participants in the experimental group were instructed how to use brainstorming strategies before reading passages in 10 sessions for 20 minutes at Asian EFL Academy Language institute in Pinang, Malaysia. A statistical comparison of the results indicated that brainstorming strategies have a positive significant effect on reading comprehension ability of the participants.

(Bayat et al., 2016) examined the impact of brainstorming strategy on Iranian EFL learner's expository writings at an intermediate proficiency level. Beside the effect of brainstorming technique in developing communicative effectiveness in a training environment, the treatment consisted of a narrative composition. The results revealed that two narrators had similar understanding of the scores which were assigned to the writing papers and it indicated the effectiveness of brainstorming technique on the

writing performance of learners. It had a positive effect on their writing achievements and had a great impact on the participants' works

(Behjat et al, 2015) investigated the effect of using brainstorming and its subcategories (listing, question and answer, outlining) as a pre-writing strategy. Participants of the study were 60 Iranian EFL advanced learners who were both males and females. Instruments of the study were pretest, instruction, post-test and a questionnaire to measure the attitude of students toward instruction. Results of the study revealed that there was no significant relationship between brainstorming, its subcategories and EFL learners writing development. Findings showed that there was no difference between males and females in terms of using brainstorming and the three subcategories.

(Amoush, 2015) aimed at identifying the impact of employing brainstorming strategy on improving writing performance of English specialist Students at Balqa Applied University in Jordan. The sample of the study consisted of 80 males and females university students, distributed into two groups; experimental and controlling. The instrument of collecting the data was writing an essay. The data were analyzed by using t-test. The study concluded that the scores of the experimental group were significantly higher than the scores of the controlling group, indicating the positive impact of employing brainstorming strategy in improving writing performance of English Specialist Students at Balqa Applied University in Jordan.

(Al-khatib, 2012) investigated the effect of using brainstorm strategy in developing creative problem solving skills among female students in princess Alia University College. The sample of the study consisted of (98) female students. The sample was distributed into two classes, the first represents the experimental group totaling (47) students taught through brainstorming strategy within the course of developing thinking skills in the academic year 2010/2011, and the second represents the controlling group totaling (51) students. The findings of the study showed that there are statistical significant differences at the level of ($\alpha = 0.05$) between the experimental group and the controlling group in the total score and the sub scores of the creative thinking in favor of the experimental group indicating the effectiveness of using brainstorming strategy in developing creative thinking skills. The researcher recommended the use of this strategy in universities as well as conducting more studies regarding its effect by using other samples in different environments.

(Harbi ,2002) aimed at measuring the impact of the use of brainstorming and the development of critical thinking and academic achievement in a sample of (63) students from the first secondary grade to biology in the Kingdom of Saudi Arabia. The students were divided into two groups, one experimental and the other is controlling. Results have shown the presence of statistically significant differences between the average achievement of the objectives knowledge of Bloom's Taxonomy for the experimental group studied by using the brainstorming.

2.   Review of the Theoretical Literature

Al-Maghrawy (2012) defines brainstorming as a group creativity forum for general ideas. AlMutairi (2013) states that the main purpose of brainstorming as a teaching strategy is to foster and enhance a communication skill, help to enrich thinking and decision-making as well as enhance different viewpoints and opinions. It may be used in all key areas at primary squares of learning.

(Takagi, N., 2013) indicates that brainstorming was firstly introduced by 'The Father of Brainstorming', Alex F. Osborn, in his book 'Your Creative Power', published in 1952. Osborn mentioned that this technique began in his advertising agency in 1939.

Recently, the role of brainstorming in obtaining educational objectives in various fields is extensively under research. Many empirical studies have been performed considering the effectiveness of this approach in group idea generation. Brainstorming strategy is one of the most important strategies in provoking creativity and solving problems in the educational, commercial, industrial and political fields. Brainstorming means the use of brain to the active problem solving and the brainstorming session aims at developing creative solutions of problems (Jarwan, 2005). As an attempt to clarify the relationship between brainstorming, cognitive aspects, and the critical thinking, the current study aims at investigating the effect of using brainstorming strategy in improving the skill of writing and critique of thinking at Iraqi EFL students.

2.1.   Brainstorming and Writing

Brainstorming strategy involves oral and pre-writing exercises for helping the learner express ideas. Brainstorming has a great importance in the teaching process. Helping the teacher to conclude ideas that are broader than students' thinking solutions, makes the teacher more democratic and respectful of views regardless of the different points of view. The teacher must be proficient to guide and lend a hand, when necessary, considering the class environment to determine the outcomes. In brainstorming strategy, the instructor carefully plans the lesson to attain the desired learning outcomes.

Using English language skillfully, one has to master the skill of writing. But it is believed that writing as a skill is one of the most challenging skills for students to master. This skill is already considered as one of the most important skills, in addition to listening, reading, and speaking in EFL. Teachers have to know more about the students' skills and capabilities in generating meanings as well as their ways of comprehending topics and the amount of lexical items they have through adopting innovative teaching strategies that improve the students' writing performance.

Traditionally, a great number of studies dealing with the skill of writing focused on being a productive one rather than the process itself. Therefore, teaching writing focused greatly on having writing free of mistakes in grammar, punctuation and vocabulary. The traditional strategies in teaching writing are no longer effective in the field of improving the students' writing performance and their creative thinking skill. Researchers believe in the necessity of having new strategies that provide the students with ideas, many more vocabulary items and ways of thinking creatively. Hence, brainstorming is supposed to be the remedy.

2.2.   Brainstorming and Critique of Thinking

Critique of Thinking is a way of thinking, and a set of skills, encouraging information, awareness, and systemic consideration. It is a logical approach to decide what should be believed or done. It leads to valid arguments and conclusions. Creative thinking is known as a compound of mental activity aiming at directing a strong desire to look for

or reaching solutions that were not known before (Jarwan, 2008). Hoing (2001) defined it as the multiple thinking that includes the breaking up of old ideas, making new connections, enlarging the limits of knowledge and the onset of wonderful ideas (AlMutairi, 2013).

McKnight (2000) asserts that critical thinking could be taught by using online discussion. The latter could be an essential approach in terms of enhancement of teaching and learning in electronic forums. Students should enhance the abilities of their critical thinking to cope with information explosion and other rapid technological changes faced with in the recent and the upcoming years. The need of high-quality creative ideas are being achieved by brainstorming and are considered extremely significant in the field of EFL. When ample opportunities of discussion are provided to learners in language learning contexts, learners' critical abilities are being enhanced concerning their lives, social intelligence, and problem-solving, etc.

2.3.   The Good Brainstormer

Students always face challenges in vocabulary, structures, ideas and novelty deduction. Hence, skilled brainstormer should have different characteristics, requirements, techniques and activities to facilitate the students' tasks. Brainstorming is an innovative conference with special nature to produce a list of ideas that can be used as clues leading students to the development of the problem, while giving each student the chance to express ideas and share them with others, in addition to intention to encourage new ideas (Al-blwi, 2006).

A skilled brainstormer should be able to use effective devices that enable students to generate various suggestions, comments, questions, and ideas, etc. with the aid of computers, as a visual aid and a helping device, novel thoughts, desirable and familiar vocabulary and expressions could ultimately guarantee students' effective participation and comprehension. Any difficulty in meaning and structures should be easified via brainstorming strategy so as to help interested and stimulated students. Many teachers have adopted brainstorming in their classroom to stimulate students' creativity preparing them to read a text, discuss a complex issue, or to write on a topic.

3.   Methodology of the Study:

This study is based on the qualitative method. It has adopted the inductive approach to conduct a theory from the collected data. To determine that, the study employs the descriptive and analytical approach. The study is an intervention study, with a brainstorming strategy program in the skill of writing, and critical thinking among Iraqi EFL students.

This study employs an applied research design, depending on the data collection process by distributing a questionnaire on Iraqi EFL Students.

3.1.   Data collecting:

3.1.1. Secondary data

This study depended on two main sources of secondary data. The first included electronic sources. The second type is paper-based sources, consisting of magazines, books, newspapers, journals and previous studies.

3.1.2. Primary Data
The research depends on two instruments in collecting primary data as follows:
1) Instrument of writing skill: developed by Marquette university (http://www.marquette.edu/).
2) Instrument of critique thinking: developed by Academic Senate for California Community Colleges (http://www.cccbsi.org) .

3.2. Questionnaire Design
Using a five-point Likerts scale, the questionnaire to be administered in this study will consist of two key components, as follows:
Part 1: Instrument of the writing skill.
Part 2: Instrument of the critique of thinking.

3.3. Reliability
Cronbach's Alpha was run to ensure the reliability of the study questionnaire; Table no.1 shows the results:

Table No.1
Reliability Statistics

Scale: Skills of Writing		
N of Items	Cronbach's Alpha	
19	.943	Experimental group
19	.957	Controlling group
Scale: Skills of Thinking Critique		
8	.921	Experimental group
8	.873	Controlling group

Table No.1 Indicates that Cronbach's Alpha values indicate that the questionnaire has suitable Reliability, to analyse its data.

3.4. Statistical Methods
The methods of data processing applied depended on a number of statistical analysis techniques available on the Statistical Package for the Social Sciences (SPSS) program. These included:
1. Descriptive statistics, such as means and standard deviations.
2. Analytical statistical processes, including multiple regression analysis Correlation analysis and (ONE-WAY ANOVA).

3.5. Objective of Studying the Sample and Population:
The potential objective of population of the study consists of all Iraqi EFL students, the researcher will apply the study on a sample consists of (100) Iraqi EFL Students.

3.6. Discussion of the Results:
A total of 100 questionnaires were distributed. 93 were collected, 8 have been neglected due to incomplete answers. Hence, only 85 questionnaires data were suitable to be tested.

3.6.1. Writing Skill
To identify the skill of writing means and students. Deviation was executed, table No.2 shows the results:

Means and Std. Deviation of Writing Skill

No.	Statement	Experimental group		Controlling group	
		Mean	Std. Deviation	Mean	Std. Deviation
1	I can write a good academic paragraph.	3.212	1.070	2.953	0.830
2	I can write a clear topic sentence that identifies the topic and the controlling idea of a paragraph.	2.800	1.213	2.929	0.941
3	I can logically organize my ideas when I write a paragraph.	2.953	1.122	2.882	0.892
4	I can logically support and develop my main point when I write a paragraph.	3.282	0.995	2.671	0.993
5	I can use appropriate vocabulary and word forms to effectively communicate with the reader	3.294	1.056	2.381	1.063
6	I can use a variety of sentence structures.	3.447	1.086	2.619	1.063
7	I can use appropriate spelling, capitalization, and punctuation.	3.482	1.019	3.506	0.701
8	I can write an accurate summary of information that I have read in English.	3.518	0.946	2.687	1.011
9	I can write an accurate paraphrase of information that I have read in English.	3.318	0.991	2.894	0.964
10	I can write accurate quotations in English.	3.141	1.156	2.750	0.968
11	I can write a good academic research paper.	3.235	1.019	2.576	1.084
12	I can write using various patterns of organization (e.g. process, comparison, cause, effect).	3.353	0.935	2.729	0.981
13	I can successfully use internet search engines to locate information to support my ideas	3.435	1.063	2.447	1.029
14	I can effectively brainstorm to gather ideas before writing	3.482	1.098	2.353	1.032
15	I can edit my writing to improve the wording, grammar, punctuation, and spelling.	3.494	1.076	2.471	1.076
16	I can effectively write under time constraints.	3.560	1.196	2.655	1.024
17	I can write quickly in English.	3.741	0.953	2.298	0.991
18	I can identify problems in my writing and see what should be improved.	3.835	0.924	2.494	1.076
19	I can use my own independent thinking in my writing.	3.786	0.879	2.741	0.990
	Average	3.388	1.042	2.686	0.985

Table No. 2 indicates that the arithmetic mean of writing skill was (3.388) in the experimental group and (2.686) in the controlling group, indicates that brainstorming techniques improved writing skill among Iraqi EFL students.

3.6.2. Critique of Thinking Skills

To identify the arithmetic mean of the critical thinking skills and Std. Standard Deviation were executed, table No.3 shows the results:

Table No.3

Arithmetic Means and Std. Deviations of Critical Thinking Skills

Controlling group		Experimental group			
Std. Deviation	Mean	Std. Deviation	Mean	Statement	No.
1.074	2.965	0.871	3.835	Sometimes I suddenly understand things, and solutions of problems suddenly seem obvious	1
0.973	3.129	0.788	3.788	I use brainstorming to generate solutions to a variety of problems	2
0.938	3.012	0.813	4.071	When I do not know what to do on a creative project, I use specific methods to get started	3
1.201	2.325	0.828	3.871	I see problems and decisions as opportunities for learning and personal growth	4
1.095	2.631	0.895	3.906	I try to consider different points of view and different solutions of problems	5
0.917	2.941	0.830	3.762	I can state assumptions that underlie a series of assertions [positive statements]	6
0.856	2.871	1.007	3.659	I can find common errors in logic or the way people think	7
0.924	2.165	0.929	3.682	I have strong beliefs and values that lead me to natural, appropriate conclusions	8
0.997	2.755	0.870	3.822	**Average**	

Table No. 3 indicates that the arithmetic mean of critique of thinking skills was (3.822) in experimental group and (2.755) in the controlling group indicating that brainstorming techniques improved critical thinking skills among Iraqi EFL students.

4. Hypothesis tests:
4.1. First Hypothesis tests:
There are no statistically significant differences in the arithmetic means of writing skill post-test between the experimental group and the controlling group. To test hypothesis ONE-WAY ANOVA run as shown in Tables No.4.
Table No.4 ANOVA

Writing Skills

Sig.	F	Mean Square	df	Sum of Squares	
.000	38.440	20.825	1	20.825	Between Groups
		.542	168	91.014	Within Groups
			169	111.839	Total

The table shows that there is a significant difference in writing skills in post-test between the experimental group and the controlling group, (F) test reached (38.44) at significant (0.00) which is lower than the specific value (0.05).
According to table No.2 These differences were to the benefit of experimental group.

4.2. Second hypothesis tests:
There are no statistically significant differences in the means of critical thinking post-test between the experimental group and the controlling group.
To test hypothesis ONE-WAY ANOVA run as shown in Tables No.5

Table No.5 ANOVA					
critical thinking					
Sig.	F	Mean Square	df	Sum of Squares	
.000	6.833	.859	29	24.905	Between Groups
		.126	140	17.595	Within Groups
			169	42.500	Total

The table shows that there is a significant different in critical thinking in post-test between the experimental group and the controlling group, (F) test reached (6.833) at significant (0.00) which is lower than the specific value (0.05).
According to table No.3, these differences were to the benefit of experimental group.

Conclusion:
The study concludes that brainstorming techniques improved the writing skills among Iraqi EFL Students. That was obvious in writing an accurate summary of information in English, which is written under time constraints effectively. Writing in English was done quickly to identify problems in writing and see what should be improved. The

study concludes that there is a significant difference in writing skills in post-test between the experimental group and the controlling group. These differences were to the benefit of experimental group. They conclude that there is a positive effectiveness of brainstorming technique on the writing performance of the learners.

The study concludes that brainstorming strategy improved the critical thinking skills among Iraqi EFL Students. It also determines that there is a significant difference in critical thinking in post-test between the experimental group and the controlling group. These differences were to the benefit of experimental group. Brainstorming strategies have a positive significant effect on both critical thinking ability and the skill of writing.

5. Recommendations:

In light of the results obtained from the study, the researcher included the following recommendations: Iraqi EFL teachers should adopt brainstorming. Iraqi EFL students have to work harder on improving the writing skills. Results show that the writing skills were at low level; writing skills mean were (3.388) in experimental group, and (2.686) in the controlling group. That indicates that these skills were at low level in both groups.

Questionnaire

This questionnaire was prepared to examine the effect of using Brainstorming Techniques on Improving the writing skill and critical thinking of Jordanian EFL Students.

Please read it carefully and provide your own choices.

The information collected is classified to be used for scientific purposes only.

The Researcher

Part (B) Please rate your abilities for each item below a scale between 1 to 5. Circle your choice.

1=never or almost never true of me

2=usually not true of me

3=somewhat true of me

4=usually true of me

5=always or almost always true of me

					Statement	No.
Writing Skill:						
					I can write a good academic paragraph.	1
					I can write a clear topic sentence that identifies the topic and the controlling idea of a paragraph.	2
					I can logically organize my ideas when I write a paragraph.	3
					I can logically support and develop my main point when I write a paragraph.	4
					I can use appropriate vocabulary and word forms to effectively communicate with the reader	5
					I can use a variety of sentence structures.	6
					I can use appropriate spelling, capitalization, and punctuation.	7

					I can write an accurate summary of information that I have read in English.	8
					I can write an accurate paraphrase of information that I have read in English.	9
					I can write accurate quotations in English.	10
					I can write a good academic research paper.	11
					I can write using various patterns of organization (e.g. process, comparison, cause, effect).	12
					I can successfully use internet search engines to locate information to support my ideas	13
					I can effectively brainstorm to gather ideas before writing	14
					I can edit my writing to improve the wording, grammar, punctuation, and spelling.	15
					I can effectively write under time constraints.	16
					I can write quickly in English.	17
					I can identify problems in my writing and see what should be improved.	18
					I can use my own independent thinking in my writing.	19

Critical Thinking Skills						
					Sometimes I suddenly understand things, and solutions to problems suddenly seem obvious	1
					I use brainstorming to generate solutions to a variety of problems	2
					When I do not know what to do on a creative project, I use specific methods to get started	3
					I see problems and decisions as opportunities for learning and personal growth	4
					I attempt to consider different points of view and different solutions of problems	5
					I can state assumptions that underlie a series of assertions [positive statements]	6
					I can find common errors in logic or the way people think	7
					I have strong beliefs and values that lead me to natural, appropriate conclusions	8

REFERENCES

1. Adams, J.L. (1979). Conceptual blockbusting: A guide to better ideas (2nd ed.). New York: W.W. Norton.

2. Akram, Fidaa, (2011), The Effect of using Brainstorming in teaching methods achievement and developing of scientific thinking, Sport Education Science Journal, 2(4), 249- 272.

3. Al-daoud, E. (2004). Science as, memorization or participation. Www.moe.edu. KW.

4. Al-khatib, Bilal Adel, (2012), The Effect of Using Brainstorming Strategy in Developing Creative Problem Solving Skills among Female Students in Princess Alia University College, American International Journal of Contemporary Research, 2(10), 29- 38.

5. AlMutairi, Abdullahi Naser Mohammad, (2015), The Effect of Using Brainstorming Strategy in Developing Creative Problem Solving Skills among male Students in Kuwait: A Field Study on Saud Al-Kharji School in Kuwait City, Journal of Education and Practice, 6(3), 136-146.

6. Amoush, Kholoud, (2015), The Impact of Employing Brainstorming Strategy in Improving Writing Performance of English Specialist Students at Balqa Applied University in Jordan, Journal of Education and Practice, 6(35), 87-92.

7. Asadi, Masoud & Navaee, Maryam, (2015), the Effect of Brainstorming on Reading Compression of Iranian OF EFL Learners, Innovations in Education- International Electronic Journal, 3(2), 26- 34.

8. Bayat, Abbas ; Malayeri, Faramarz & Mehr, Marzieh, (2016), The Effects of Brainstorming as a Prewriting Activity on Iranian EFL Learners Prompted Expository Writing, International Journal of Educational Investigations, 3(3), 85-93.

9. Behjat, Fatemeh ; Hashempour, Zahra & Rostampour, Mohammad, (2015), The Effect of Brainstorming as a Pre-writing Strategy on EFL Advanced Learners' Writing Ability, Journal of Applied Linguistics and Language Research, 2(1), 86-99.

10. Behroozniab, Saeedeh & Ghabanchia, Zargham, (2014), The Impact of Brainstorming on Reading Comprehension and Critical Thinking Ability of EFL Learners, Procedia - Social and Behavioral Sciences, 98(14), 513 – 521.

11. Eng, Lin; Ismail, Shaik; Raftari, Shohreh & Sharafi-Nejad, Maryam, (2016), Prior Knowledge Activation through Brainstorming to Enhance Malaysian EFL Learners' Reading Comprehension, International Journal of Linguistics , 8(2), 187-198.

12. Farangi, Mohamad; Fatemi, Mohamad; Manouchehry, Arezoo & Qaviketf, Farideh, (2014), The effect of Two Brainstorming Strategies on the Improvement of Iranian Intermediate EFL Learning Writing Skill, International Journal of Language Learning and Applied Linguistics World (IJLLALW), 6(4), 176- 187.

13. Fransisca,M & Zainuddin ,Z(2012). The Effect Of Applying Brainstorming Technique On The Students' Achievement In Writing Descriptive Paragraph, GENRE Journal of Applied Linguistics of FBS Unimed, 1(1), 112- 120.

14. Haririan, Javad & Maghsoudi, Mojtaba, (2013), The impact of brainstorming strategies Iranian EFL learners' writing skill regarding their social class status, International Journal of Language and Linguistics, 1(4-1), 60-67.

15. Haririan, Javad; Maghsoudi, Mojtaba & Madani, Davood, (2014), The Effect of Brainstorming Strategies on Iranian Efl Learners' writing Skill, Journal of Social Issues & Humanities, 2(4), 91- 97.

16. Hassani, Vahid, (2008), The Impact of Brainstorming on the Development of Iranian EFL Learners' Speaking Ability at Lower Intermediate Level, Unpublished Master dissertation, Islamic Azad University, Tehran, Iran

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

18. Hermasari, Devi & Mujiyanto, Yan, (2015), The Effectiveness of Online Brainstorming and Brainstorming Techniques in Teaching Writing to Students with Different Learning Strategies, English Education Journal, 5(2), 28-34.

19. Hussein, Ali & Mohammad, Mohammad, (2013), Enhancing Students' Motivation to Write Essays through Brainstorming: A Comparative Study, International Journal of Humanities and Social Science, 3(9), 191- 196.

20. Khan, Intakhab, Relevance of Brainstorming in an EFL classroom, Journal of Social Issues & Humanities, 5(1), 12880- 12883.

21. Kirk, Stephen J. and Spreckelmeyer, Kent F. (1993). Enhancing Value in Design Decisions

22. Labiod, Ahlem, (2007), Prior Knowledge Activation Through Brainstorming to enhance EFL Learners Reading Comprehension: The Case of Second Year Learners at the ENS, Constantine, Unpublished Master Dissertation, Mentouti University, Constantine. Constantine

23. MacKnight, C. B. (2000). Teaching critical thinking through online discussions. Educause Quarterly, 4, 38-41. Retrieved on February 2, 2012 from http://net.educause.edu/ir/library/pdf/EQM0048.pdf

24. Manasrah, Mohammad, (2014), The Importance of Brainstorming In Improving ESP Reading Comprehension, International Journal of Arts and Commerce, 3(1), 19-25.

25. Mateen, TayyabaZarif, (2013), Role of Using Brainstorming on Student Learning Outcomes during Teaching of Students at Middle Level, Interdisciplinary Journal of Contemporary Research in Business, 4(9), 1089- 1097.

26. Melhem,Nour & Rababah Luqman, (2014), Investigation into Strategies of Creativity in EFL writing in Jordan, Journal of Education and Practice, 4(33), 195- 207.

27. Omar, Shomoa, (2012), The Effect of Using The entrance to Brainstorming in The developing of Creative Thinking and Achievement in Geography of the students at the Seventh grade in Northern Gaza Strip Governorate, Unpublished Master Dissertation, Al-Azhar University –Gaza, Palastine.

28. Takagi, N. (2013). Applications of idea-generating techniques to the teaching of argumentative writing. InN. Sonda & A. Krause (Eds.), JALT2012 Conference Proceedings. Tokyo: JALT.