

Effective Brainstorming in Teaching Social Studies for Elementary School in Saudi Arabia

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Abstract

The aim of this study is to examine The Effective of Brainstorming in Teaching Social Studies on the Achievement Students of Elementary School in Saudi Arabia. The sample of the study consisted of (62) One-Grade male students selected by purposeful sampling In Jafar School. The sample of the study was divided into two groups such that experimental group consisted of (31) students who studied using the traditional method. To achieve the purpose of the study, the researcher designed the teaching material in accordance to Brainstorming, and achievement test to measure the acquisition of students in the unit "Issues and problems". The results of the study showed statistically significant differences in the achievement and the total of achievement in favor of the experimental group that studied using the Brainstorming. The study recommended the inclusion of Brainstorming as an instructional strategy in education and that the Elementary teachers should use Brainstorming in their daily lesson plans.

Keywords: Effective Brainstorming, social studies, teaching, elementary school

Introduction

Effective teachers can acclimatize instructions in their modules to meet the needs of each student. Teachers are encouraged to make adjustments to the curriculum, modify ways of approaching various problems associated with the topic, and fine-tune the product based on the levels of readiness. They're also required to discern a student's interest in a particular subject and the learning curve of every schoolchild. Effective teaching of social studies involves the incorporation of a variety of techniques in the instructions given to students, the way they are grouped and the assessment method used since not all students learn the same thing at the same time using a similar approach (Lewis & Thompson, 2012 pp. 1). Therefore, teachers ought to proactively distinguish the needs of a student. They can make changes regarding how the curriculum should adapt to the students' needs and the appropriate instructional method to use. The ultimate goal of teaching social studies is to ensure all students are successful without hindrances brought forth by their learning capabilities (Lewis & Thompson, 2012 pp. 1).

Problem of the Study

The pretest results clearly showed that most students are usually unresponsive in class. In addition, most of these students do not take part in class activities. Moreover, lack of interest in learning leads to noise making. In this particular study, students lacked interest in learning social studies. Interestingly, it was realized that the main cause of the students disinterest was their ideas and opinions not been taken into account. Teachers do not usually ask for students' opinions. This occurrence leads to increased disinterest and noise making becomes a common obstacle to learning. Since the students' rate of comprehension is unequal; some students do not grasp what is being taught by a teacher. As such, they stop listening to the teacher and might develop disinterest in the subject. The student's mind wanders, and they start daydreaming, wishing for the lesson to end. Such a student, therefore, does not learn and only wastes time in class. Students also start skipping classes. They go out with their peers during class time, resulting in truancy. Most students, who start skipping classes, do not do anything productive with their time and end up abusing drugs when they miss school.

Moreover, as a student continues to skip classes, they miss out on what is taught. They also start avoiding homework, running away from group work and other tasks. Furthermore, these students begin sleeping in class and disturb others during class time.

Question of the Study

- Is there a statistically significant effect at the level of significance ($\alpha = 0.05$) for using brainstorming program in Teaching Social Studies On The Achievement Students of Elementary School in Saudi Arabia.

The Importance of the Study

The findings of the study will furnish policy makers as well as curriculum developers with vital information on how to assist both educators and students to develop appropriate teaching and learning skills for better cognitive achievement in examinations. In addition The findings of this study will benefit educators by providing them with an innovative teaching method for better understanding of concepts and cognitive development. Further, the findings of the study will open new grounds for conducting more research on the use of Brainstorming in other subject areas, which will be aimed at improving academic performance at the Elementary Schools in Saudi Arabia, as well as other schools in various regions across the globe.

The Study Limits

The study was conducted within the number of limits that were related to methodological base of the study, approaches used and features of the research scope..

- I. A Sample of fifth-grade elementary students at the Jafar School inqaisomah city in Saudi Arabia in the second semester of 2014/2015.
- II. The study discussed Brainstorming Strategy, hence, findings are limited to those variables within the used procedures.
- III. Teaching of unit "Issues and problems"

Procedures of Study

In the current study, the procedure that was employed was quasi-experimental. In particular, the pre-test, post-test as well as non-equivalent control group design was used. The population of the study comprised 62 five-Grade male students Injafar school in Saudi Arabia. Purposeful sampling method was applied, as it fits the objectives of the study. The sample of the study was divided into two groups so that the experimental group consisted of 31 students who studied using the traditional method. The researcher designed the teaching material in accordance to Brainstorming to achieve the purpose of the study. Moreover, the use of the achievement test was to measure the acquisition of students in the unit "Issues and problems". Fundamentally, Teachers were trained to deliver the same content to the groups and carry out teaching in the experimental and control classes. The pre-test and post-test scores were analyzed using averages, standard deviation as well as covariance.

Literature Review

Brainstorming can be defined as a group or an individual creativity method in which attempts are made to determine a definite conclusion for a particular problem by obtaining information in form of a list of ideas that are spontaneously contributed by the members (Rowan, 2014 pp. 1). The idea was originally made popular by Alex Osborn in 1953. He claims that individuals working alone to come up with ideas are less efficient than when the ideas are generated through brainstorming. Though this assertion may be questionable in modern day, through research, it is used to refer to all group ideation sessions (UNC, 2014 pp. 1). Brainstorming is simple and effective when used as a strategy for teaching social studies especially in the introduction of new concepts. It is effective because it activates the students' background knowledge and captures their interest (UNC, 2014 pp. 1). While the students are learning, the teacher can determine whether they possess enough background knowledge to move ahead with the lesson or not.

The Advantages of Brainstorming

Brainstorming helps elementary school students to identify and come up with real questions to include in learning projects (ODE, 2014). Students are able to come up with ideas regarding how to solve particular problems; and therefore, can come up with questions relating to how the problem comes about and the best way to tackle it (Ikwumelu & Oyibe, 2014 pp. 5).

Moreover, the students are autonomous in developing ideas, no matter how obnoxious they may seem; therefore, they feel free (Ikwumelu & Oyibe, 2014 pp. 5). As such, students can increase the opportunity to learn from their mistakes and their peers while still reinforcing basic skills of brainstorming and social studies (Ikwumelu & Oyibe, 2014 pp. 5). Brainstorming incorporates other forms of study such as critical thinking that are necessary for the thought process (ODE, 2014). Critical thinking helps students understand the problem and come up with its most suitable solution. Moreover, it helps with team building, as it is appropriately suited for group projects. However, brainstorming is not only helpful in teaching social studies to elementary school students. It can also be used in other areas. For instance, it can be used in corporations to come up with brand names, or in high schools for projects that require one to think extensively. As students grow, so does their level of questioning and research skills (ODE, 2014). Brainstorming acknowledges students' funds of knowledge. Opening up the thought process provides opportunities for everyone including minorities and disadvantaged students since no criticism is involved in brainstorming (ODE, 2014).

The Disadvantages of Brainstorming

Though Osborn provides basis that group brainstorming is effective and comes up with more ideas than when individual elementary students work alone, a good deal of research claims otherwise. For instance, in an assessment that involved twenty-two studies conducted on group brainstorming, Wolfgang Stroebe, and Michael Diehl discovered that in many of the groups, brainstorming together produced very few ideas in comparison with the credibility it was given. However, some individuals working alone came up with more ideas than the whole group (IAAR, 2012 pp. 69). Group brainstorming can be hindered by several factors such as blocking. Since only one person in a group can give their idea at a certain time, the other members of the group might forget the thoughts they had in mind (IAAR, 2012 pp. 69). In addition, members may consider their view irrelevant or no longer important, and hence, not share it after they hear another member's idea (IAAR, 2012 pp. 71). Moreover, when we define brainstorming as a cognitive procedure whereby a participant generates an idea and then stores it in the short-term memory, eventually extracting the information from short-term memory and expresses it, blocking seems like a more critical challenge as it may also hinder an individual's thoughts (Jung et al., 2014 pp. 3). A person, therefore, does not generate any more ideas, and as a result, is unable to remember them as their train of thoughts is interrupted (IAAR, 2012 pp. 71). Secondly, collaborative fixation may hinder group brainstorming. When students in a group exchange ideas, they may decrease the amount of domains that are left available for the group to go through extra ideas. The members of the group may conform to the ideas other members have, thereby decreasing the novelty or variety of ideas, though the total number of ideas may not decrease (IAAR, 2012 pp. 69).

Furthermore, evaluation apprehension is seen to only come about in instances where personal evaluation occurs (Cheema & Kitsantas, 2014 pp. 2). If there is an assumption that collective assessment is put in place, present judgment of ideas, presumably an induction of assessment apprehension, fails to come up with a significant variance (IAAR, 2012 pp. 69). Moreover, free riding is another hindrance to brainstorming. Individuals may get the feeling that their thoughts are of less significance in comparison with the ideas that the group has developed (IAAR, 2012 pp. 69). Diehl and Stroebe showed that even when a person worked alone, they came up with fewer ideas if they were told that their productivity would be reviewed in a faction with other people than if they were told that what they came up with would be arbitrated individually. Then again, through experiments, it was seen that free riding only took up a small part of the productivity loss (IAAR, 2012 pp. 69). Therefore, the type of brainstorming session contributed more to the loss of productivity than free riding. Personality characteristics tend to hinder brainstorming. Extroverts outperform introverts when it comes to computer-mediated groups. Moreover, extroverts come up with more distinctive and varied ideas than introverts. This occurrence mainly takes place when several methods are employed to come up with ideas, such as finishing a small related undertaking before embarking on brainstorming, or getting a list of brainstorming rules (IAAR, 2012 pp. 69).

Lastly, social matching hinders brainstorming. In group brainstorming, participants tend to change their rate of output to match that of others in their group. Therefore, some individuals tend to generate fewer ideas than they would individually. These individuals reduce their productivity; therefore, lowering their involvement if they consider themselves more productive than other members of their group (Nasrallah, 2014 pp. 4). On the other hand, social matching can also add on a person's rate of production in order to attain the group average (ODE, 2014).

Previous Studies; Review of Related Literature

Dr. Tayyaba Zarif conducted a study on the role of brainstorming on the teaching of social studies to middle-level students. He used twenty-five students, ten boys, and fifteen girls, for the study (Mateen, 2013 pp.1). After a pretest, the teacher taught different topics using brainstorming and recorded the results through a post-test. He then carefully analyzed the results of the pre-test, as well as the findings of the post-test. There was a significant difference in the two tests' results (Mateen, 2013 pp. 1). The average students' achievement in the pretest came to about 14.4%. However, the post-test recorded a student achievement score of 73.76% (Mateen, 2013 pp. 1). This difference showed a major increase in the students' achievement. The researcher's study revealed that the increase was attributed to a rise in the students' interest in the class. For that reason, they participated more in class activities; and, therefore, knew that the teachers paid more attention to their thoughts and opinions (Mateen, 2013)

Al- Olimat (2008) investigated the effects of brainstorming on individuals and strategies used to boost creative thinking among eighth grade Jordan students. The researcher selected eighty-five students to participate in his study. These students were distributed among an experimental group and a control group. The evidence from the findings indicated that brainstorming is a useful teaching technique and a favorable method to employ (Al-Khatib, 2012 pp. 33). Alsalamat (2010), The study aimed to investigate and examine the Effectiveness of brainstorming on the achievement of the seventh grade students in geography and to develop their attitudes towards it. The study sample consisted of 45 seventh grade students who were randomly divided into two groups (experimental and control). The experimental group was taught through using brainstorming, and the control one was taught by using the traditional method of teaching. which showed that there were significant differences at ($\alpha = 0,05$) among the means of the students' scores in the experimental and control groups on achievement test and attitude scale towards geography in favor of the experimental group which were taught through using brainstorming method.

Algorashi(2008) ,This study aims at investigating the effect of Brainstorming Strategy in Teaching History in The development of creative thinking and achievement and retention of second grade secondary school female students in Saudi Arabia. The researcher used the quasi-experimental method where the sample of the study consisted of (64) students of second grade secondary school female students divided randomly to two groups: experimental with (32) female students studied by using brainstorming strategy, and control with (32) female students studied by normal method and the experiment took five weeks.

The study tools were represented in an achievement test prepared by the researcher consist of (40) paragraph to measure the six cognitive levels (Knowledge, Comprehension, Application, Analysis, Synthesis, and Evaluation). The following results were achieved:

- Experimental group overtop the control group in Brainstorm in ease and flexibility and total cogency.
- Experimental group overtop the control group in Achievement test.
- Experimental group overtop the control group in data Retention.

Results of the Study

Is there a statistically significant effect at the level of significance ($\alpha = 0.05$) for using brainstorming program in Teaching Social Studies On The Achievement Students of Elementary School in Saudi Arabia

Table 1: Averages and Standard Deviations and the value of (T) and the Level of Significance of the Response of the Students on the pre-test for Academic Achievement

Group	Number	Average	The standard deviation	T	sig
Experimental	31	7.16	2.44	0.34	0.05
Control	31	7.42	3.61		

Table 2: Averages and Standard Deviations and the Value of (T) and the Level of Significance of the Response of the Students on the Post-Test for Academic Achievement

Group	Number	Average	The standard deviation	T	sig
Experimental	31	35.13	5.43	2.83	0.005
Control	31	31.16	5.39		

The post test outcome was even higher at 35.13 indicating the high relevance of application of Brainstorming sharing or learning new information. As seen above, there is a statistical significant difference between the means of the performance of the group that received training and the control that didn't receive any training even in the total score of the test or its sub skills. The effect of this strategy in developing creative thinking as a whole and in its sub skills may be attributed to the advantages of this strategy that are accepted among students. Some of those advantages are the preparing element and making students ready to participate in the sessions as well as joy environment that provide students with a free climate that doesn't contain any critics and interference. may be attributed to the nature of Brainstorming strategy that encourage students to generate the highest number of ideas that are varied and creative in a spontaneous and free open climate that is not critical and doesn't limit the freedom of launching ideas. Moreover, its nature based on phases allows students to move from one step to another freely after completing the previous step .it is clear that Brainstorming is important teaching tool. With a positive significance value. From the above result, it indicates the positive correlation between Brainstorming application and student understanding of taught in class The findings of this study are Consistent with :(Mateen, 2013 pp.1) , (Al- Olimat,2008),(Alsalamat ,2010)and (Algorashi , 2008).

Summary of the Study

Brainstorming is a technique, effective in groups that were designed to increase the number of ideas generated by members to contribute to finding solutions to a problem. Brainstorming is helpful when one needs to break from stale patterns of thinking that have already been established. It focuses on the development of new ways of looking at things. It is particularly helpful when one needs to develop a new opportunity. It also aids in improving the services one offers to others. Brainstorming can also be used when the established methods do not give the intended results, and, therefore, one needs to change from the conventional way they go about their duties. When a team uses brainstorming technique, all the experience of the team members is brought into play when tackling the problem by generating a solution. Brainstorming generally entails reducing the social inhibitions that come up in groups when new ideas are being generated. The results expected are a dynamic synergy that expands exponentially in order to increase the creativity of the group.

Recommendations

Based on the findings of the study the researcher recommended

1. Encouraging of teachers to use brainstorming strategy in teaching.
2. The findings of this study to further experimentation, critique, as well as, dialogue concerning the application of the tools in an educational setting because it has been observed that the tool provides wonderful opportunities that can boost lively exchanges among students and educators
3. Conducting more studies discussing this strategy and its relation to other variables such as critical Thinking.
4. Conducting more studies on other samples from different study and age levels and from different environments.

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