

Research Article

WALKING TOUR STRATEGY ON THE PERFORMANCE IN SCIENCE OF GRADE 4 STUDENTS

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ABSTRACT

Walking Tour is a strategy that utilizes a creative active learning environment. This study aims to find out the effectiveness of Walking Tour strategy on the performance in Science of grade 4 students. Specifically, it seeks to find out the significant difference in the pretest and posttest scores in Science of the students when grouped to Walking Tour strategy and Lecture Method. There were fifty grade 4 students of Calangahan Elementary School enrolled in SY 2017-2018 are the subjects of the study. The study used true experimental research design, the randomized pretest-posttest control group design which utilized the pretest and posttest questionnaires. Data were analyzed through percentage, t-test, and paired t-test. T-test result showed no significant difference on the pretest scores in Science of the students when grouped to Walking Tour strategy and Lecture Method. However, it revealed a significant difference in the post-test scores of students in Science when taught to Walking Tour as a Strategy and Lecture Method. Moreover, Paired t-test result showed a significant difference in pretest and posttest scores of students in Science when taught to Walking Tour strategy and Lecture Method. This study concludes that Walking Tour strategy is an effective way of teaching Science and can improve students' performance. Further, a study can be done using Walking Tour Strategy to other subjects to examine its effectiveness.

Keywords: Control group, Experimental group, Performance, Strategy

INTRODUCTION

Educators across the globe have tried various kinds of learning strategy, to address the students' needs and to find ways how their students to understand the lesson. Studying is a hard task, but it ceases to be a task when it has right the amount of motivation. The motivation of pupils is an important issue in higher education, particularly owing to the importance of academic performance in their professional life. Motivation is that force that energizes the learner to do what she/he is expected to do. It is activation to action. Student motivation is the element that leads students' attitude towards the learning process (Lucas and Corpuz, 2011). Collaborative learning is an umbrella term for a variety of educational approaches involving an intellectual effort by students, or students and teachers together. Usually, pupils are working in groups of two or more, mutually searching for understanding, solutions, or meanings, or creating a product. Collaborative learning activities vary widely, but most center on students' exploration or application of the course material, not simply the teacher's presentation or explication of it. Collaborative learning represents a significant shift away from the typical teacher-centered or lecture-centered milieu in college classrooms. In collaborative classrooms, the lecturing/ listening/note-taking process may not disappear entirely, but it lives alongside other processes that are based on students' discussion and active work with the course material (Smith and McGregor 1992). Teachers who use collaborative learning approaches tend to think of themselves less as expert transmitters of knowledge to students, and more as expert designers of intellectual experiences for students-as coaches or mid-wives of a more emergent learning process. A walking tour is a learning strategy in which the passages, pictures, words, or the contents of the topic are posted around the room. The students shall tour around the room and discuss each topic. After the tour is completed, the group shall

summarize the answers. Collaborative learning varies greatly in scope and objectives (Taylor, 2001). Cooperative learning strategies have demonstrated the ability to outperform teacher-centered Strategies in the classroom. Cooperative learning techniques in the social studies classroom are not used as frequently as other disciplines use cooperative learning strategies Klippel (1992), Social skills are also needed to accomplish mutual goals, students must know and trust each other In terms of effective social skills and cooperative learning strategies, students need to be properly instructed as to how to communicate effectively within a group setting. Educators must monitor the communication dynamics within each group. Group processing enables group members to reflect on a group session to describe what actions of the group members were helpful and not helpful (Johnson, et al.,1986).

Objectives of the Study

This paper attempts to answer the following questions:

1. What is the pretest score in Science of the pupils when grouped to Walking Tour strategy and Lecture Method?
2. What is the posttest score in Science of the pupils when taught to Walking Tour strategy and Lecture Method?
3. Is there a significant difference on the pretest scores in science of the pupils when grouped to Walking Tour strategy and Lecture Method?
4. Is there a significant difference on the posttest scores in Science of the pupils when taught to Walking Tour strategy and Lecture Method?
5. Is there a significant difference on the pretest and posttest scores in Science of the pupils when taught to Walking Tour Strategy and Lecture Method?

Theoretical Background

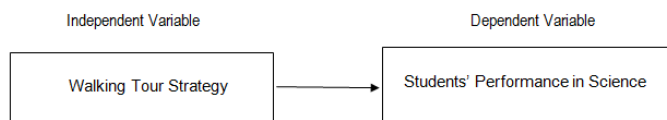
This study anchored on the theory of Piaget's Constructivism theory, Bruner's Constructivism theory, Vygotsky's Social learning theory and

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Dewey's Learning- by-Doing. This study is grounded on the belief that learners learn best when they construct their own knowledge and apply or generalize its meanings to new situations. The constructive paradigm as advocated by Piaget and Bruner stresses that whatever gets into the mind has to be constructed by the individual through knowledge discovery.

Figure. 1 shows the relationship of the independent variable (Walking Tour Strategy) to the dependent variable (Student' Performance in Science).



METHODS

The study used true experimental design, the randomized pretest-posttest control group design. Two sections were used, with one group being taught to Walking Tour strategy and other group with Lecture Method. Random assignment was used to form the groupings. The performance of students was measured through giving of pretest and posttest before and after implementation of the topics chosen by the researcher. The subject of the study were the grade 4 students of Callaghan Elementary School SY 2017-2018. This study involved two sections the grade 4 section kind and helpful with total of 50. It is located in barangay Callaghan, Lugait, Misamis Oriental .An instrument used was table of specification to determine the level of cognitive domain in each test questions. There were six lesson plans used during the implementation of the study. These lesson plans served as a guide during the conduct of the study. The topics and activities of the science topics were stated in the lesson plans. Three lesson plans were used in the experimental group and the other three were used in the control group. A pretest was given before the implementation of the study and the posttest was conducted after the implementation of the study.

RESULTS AND DISCUSSION

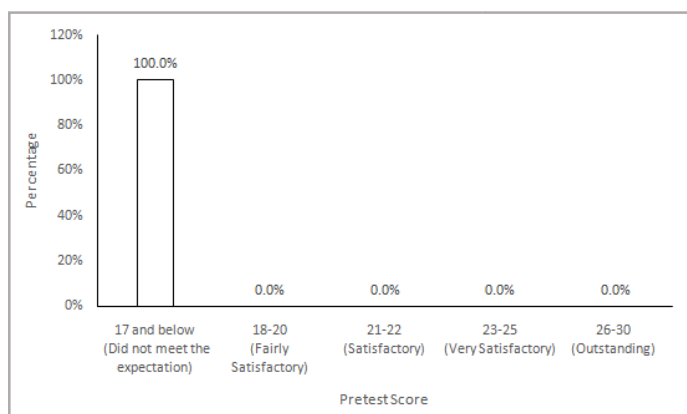
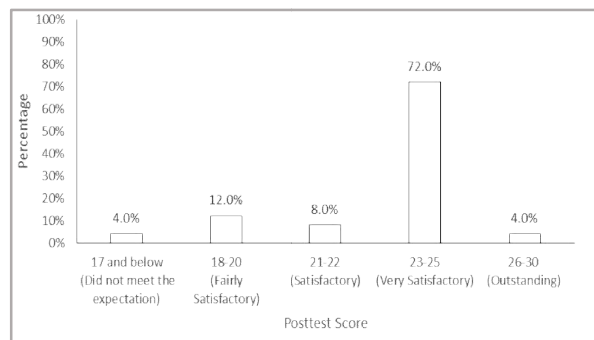
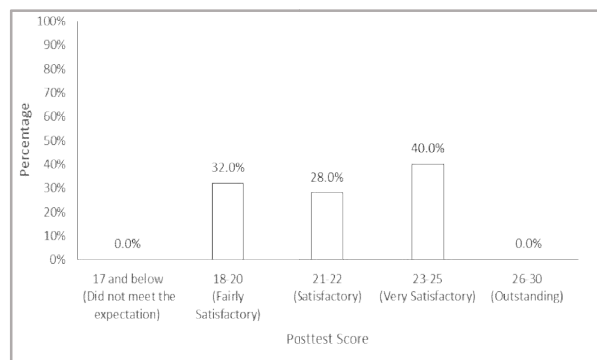


Figure 2 displays the percentage distribution on the students' pretest score in Science of grade 4 students when grouped to Walking Tour strategy and Lecture Method. One hundred percent (100%) of them got the score ranging from 0 to 17 which means that learners did not meet the expectation in Walking Tour Strategy. The same with Lecture Method group, one hundred percent (100%) of the learners got the score ranging from 0 to 17 which means that the learners did not meet the expectation. It implies that all of the students when

grouped to Walking Tour strategy and Lecture Method that have taken the pretest find it difficult for the reason that they have taken the pretest without any background knowledge of the topic included in the test. In the study of Honarmand, (2015), the pretest must give to the learners at the beginning of the topic or lesson discussion to fully determine their knowledge capacity and achievements. Hence, it was expected that the respondents got low score and it was found out that all of them got a score ranging from 17 and below which means did not meet the expectation. pretest was given to the pupils at the beginning of the research where the pupil had poor level of proficiency and the vocabulary items.



Walking Tour Strategy



Lecture Method

Figure 3 shows the percentage distribution of the posttest scores in Science of grade 4 students' when grouped to Walking Tour strategy and Lecture Method. In Walking Tour strategy, seventy-two (72.0%) of the respondents got a score ranges from 23-25 which is classified as very satisfactory got the highest score, and four (4%) of the respondents got a score of 26-30 which is outstanding but some students got a score of 17 and below which means did not meet the expectation. On the other hand, the Lecture Method got the forty percent (40%) of scores 23-25 which is very satisfactory while none of them got 17 and below. This implies that both the Walking Tour strategy and Lecture Method group has improved their performance in the posttest. However, the Walking Tour strategy has a better performance than the Lecture Method group. Learners in the experimental group have improved a lot than of the controlled group and they have more positive outcomes than of the others. The relative superiority of Walking Tour strategy over Lecture Method in enhancing students' achievement can be attributed to the fact that students are actively involved in the learning process. The primary underlying principle was that knowledge takes the form of information that is transmitted to students. After the teacher's explanations, some concepts were discussed (Abdi, 2014). This implies that pupils are very used to lecture method as it is the primary and common method used by their teachers; they better understand what they have learned and therefore improve their performance (Melihan and Sirri, 2011).

Difference on students' pretest scores in Science when grouped to Walking Tour strategy and Lecture Method

Group	mean	mean difference	t-value	p-value	remarks
Pretest	11.16				
Walking tour strategy		-0.84	-1.62	0.112	Not Significant
Lecture Method	12.00				

Table 1. T-test result showing the differences on the learners' pretest scores

With 0.05 level of significance

Table 1 presents the difference on the students' pretest score when grouped to Walking Tour strategy and Lecture Method. The analysis reveals no significant difference on pretest scores of the learners when grouped to Walking Tour strategy and Lecture Method . It also shows the mean difference which is -0.84 and T-value which is -1.62. T-test showed that there was no significant difference on the students' pretest scores in Science when grouped to Walking Tour strategy and Lecture Method. It revealed no significant, since the p-value was 0.112 and it is greater than 0.05 level of significance. Therefore, the null hypothesis is not rejected. It implies that the student's pretest scores when grouped to Walking Tour strategy and Lecture Method do not differ with each other. It means that the respondents were equal in terms of their performances and background knowledge Furthermore, Bomia *et al.*, (1997) has suggested student motivation as student willingness, need, desire and obligation to participate and be booming in the learning process.

Difference on students' posttest scores in Science when taught using Walking Tour strategy and Lecture Method

Table 2. Independent T-test result showing the differences on the students' posttest scores of the two groups.

Group	Mean	Mean difference	t-value	p-value	Remarks
Posttest score					
Walking Tour Strategy	23.12				
Lecture Method	21.64	1.48	2.35	0.0230	Significant

With 0.05 level of significance

Table 2 displays the difference on the students' posttest score when taught using Walking Tour strategy and Lecture Method. The analysis reveals there was a significant difference on the posttest score of the students when taught using Walking Tour strategy and Lecture Method. It also shows the mean difference which is 1.48 and t-value which is 2.35. T-test showed the significant difference on the students' posttest scores when taught using Walking Tour strategy and Lecture Method. The analysis revealed that there was a significant difference on the students' posttest scores when taught using Walking Tour strategy and Lecture Method in favor Walking tour strategy, since the p-value was 0.0230 and it is less than 0.05 level of significance. Therefore, the null hypothesis is rejected. The results revealed that there was a significant difference on the posttest scores of the students' and this means that the experimental group or the Walking Tour strategy have better performance than of the controlled group or the Lecture Method. Therefore, cooperative learning increases student motivation to do academic work (Johnson, et al., 1986).

Difference on the students' pretest and posttest scores in Science when taught using Walking Tour strategy and Lecture Method

Table 3. Differences on the learners' pretest and posttest score of the two groups

Group Difference	Mean	Mean	t-value	p-value	Remarks
Walking Tour Strategy					
Pretest	11.16	11.96	-20.67	8.51X10 ⁻¹⁷	Significant
Posttest	23.12				
Lecture Method					
Pretest	12.00	-9.64	-18.02	1.89E-15	Significant
Posttest	19.40				

With 0.05 level of significance

1.89 E-15 respectively. It also shows the mean difference which of -11.96 for the experimental group and -9.64 for the control group. Moreover, analysis reveals in Paired t-test showed significant difference on the students' pretest and posttest scores when taught using Walking Tour strategy and Lecture Method since the t-value is -6.4727 corresponds to the p-value which is 8.51×10^{-17} and 1.89×10^{-15} which is lesser than $p \leq 0.05$ level of significance. The Walking Tour strategy can help pupils internalize the new words or ideas better. Furthermore, because many of the tasks educators require their students to undertake are not inherently interesting or enjoyable knowing how to promote more active and volitional forms of extrinsic motivation becomes a key strategy for successful teaching (Ryan and Deci, 2000). This unveils that Walking Tour strategy has highly significant results in terms of performance in Science of grade 4 students'. This proves that Walking Tour strategy is effective in teaching Science.

Summary and Conclusion

The study reveals that all (100%) of the pupils' grouped to Walking Tour as a Strategy and Lecture Method got a pretest score that ranges from 17 and below which means did not meet the expectation. However, seventy two (72%) of the pupils taught to Walking Tour Strategy got a posttest score that ranges from 23-25 which means very satisfactorily and forty percent (40%), the pupils' taught to Lecture Method got a posttest score that ranges from 23-25 which means very satisfactorily. Further, there was no significant difference on the pupils' pretest scores in science when grouped to Walking Tour as a Strategy and Lecture Method. Moreover, it was revealed that there was a significant difference on the pupils' pretest and posttest scores in science when exposed to Walking Tour strategy and Lecture Method. This study concluded that Walking Tour as a Strategy can improve the students' performance in Science.

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