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Effect of Feedback on the Task Performance of Grade 4 Students

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Abstract

Previous studies associated feedback to positive improvements in both the performance and behaviour of students. This study evaluated the effects of feedback on the task performance of the grade 4 students in the context of learning multiplication in mathematics subject. Through an experimental research, the feedback given to the students was in the form of multiplication by hand technique. There were 40 randomly selected participants distributed equally to the control and experimental groups. Through the research-made test question, which is a 15-item multiplication questions, the experiment was carried out virtually through the assistance of the classroom teachers. The findings showed that the pretest results showed no difference on the performances of participants in both the control and experimental groups. After the implementation of the posttest, students in the control group showed no change in performance. However, students in the experimental group had higher performance in the posttest. The results showed that students who received feedback on multiplication skills had improved performance compared to the students who did not received any feedback. This study argues that providing students feedback regarding their performance improves their behaviour and performance. This study recommends the employment of feedback across grade levels and subject areas.

Keywords: *Remote Teaching and learning, Challenges, Opportunities, COVID-19 Pandemic*

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1. Introduction

In educational setting, feedback is used as motivational tool to correct mistakes, increase confidence and form encouragement. In the perspective of a student, working hard is tantamount to achieving goals and academic success. However, reaching their goals require proper and relevant knowledge on the process; receiving feedback is one form. According to Wiggins (2012), feedback is about the information on how a person can exert an effort to reach his/her goal. This information can be useful to adjust and improve the current and future actions or behaviors of an individual. It also helps people learn even from their mistakes. As Bill Gates said, "*we all need people who give us feedback, that is how we improve*."

According to Spiller (2009), once an individual accomplished a certain task, the feedback must be given immediately. For instance, whenever a feedback is given after student's demonstration of skills, the student may respond positively and recall the experience with confidence. This helps determine the best course of action to improve the level of performance. It also engages a person to pay attention to the quality of work. It holds true of the performance task, an individual application of specific and discrete skills to identify abilities and knowledge mastered. Task performance results in a measurable product that can be used as evidence of learning, applying students' learning into practice. In this construct, student's responses must really reflect knowledge and skills being assessed. In performing a certain activity or task, students can showcase what they know as the learning outcome.

In teaching and learning mathematics, feedback and performance task are two important components. The most common task for elementary pupils is the mastery of the multiplication. Jarema (2007) quips that "…*learning multiplication is an essential part of a child's elementary education. Students who have mastered multiplication gain a solid foundation in Mathematics that will help them throughout middle school, high school and beyond*." By *beyond* means utilization of multiplication skills in everyday life such as budgeting money and resources, calculating the days of the weeks, months, or years and the likes. The ability to fully understand multiplication will boost a child's confidence in the subject (Winfield, 2020). One way to help a child to do so is by providing feedback while learning multiplication. A simple yet effective way of giving feedback to a child learning the multiplication is through hand technique. Using only the two hands and assigning the values of 6 to 9 from the pinky to the index fingers, a child can easily multiply numbers. This technique may help those students who find it hard to memorize multiples of 6 to 9 or always get it wrong when multiplying these numbers. Familiarizing

themselves to this technique allows them to calculate and solve easily and correctly. Even without the use of calculator, they can answer the questions confidently.

Within the premise that pupils given no feedback blindly solve multiplication questions would not determine mistakes and may repeat the wrong actions, this study explored and investigated how feedback helps pupils in performing multiplication problems. As teachers themselves, the researchers had a fair share of giving feedback and seen students encouraged to improve and engage more in every task. With the presumption that giving feedback increases the accuracy in performing a certain task, this study specifically tests the effect of feedback to the grade four students in mathematics carried out through experimental design using the mean scores of the pretest and posttest. It proves the following hypotheses at 0.05 level of significance:

Ho1: There is no significant difference between the pretest scores of experimental and control groups

Ho2: There is no significant difference between the posttest scores of experimental and control groups

Ho3: There is no significant difference between the pretest and posttest scores of experimental and control groups

2. Literature review

2.1. Feedback

Feedback is given to students as suggestion to improve, inform progress, enables correction, and use for motivation. When the students are given the chance to apply and practice the information given to them, it makes feedback effective. When they continue to practice it, the information retains and they become motivated to do the work again. The students' response to feedback should be considered and should happen in a place where learning is valued such as classrooms or wherever they can engage themselves to make an impact for their progress (Brookhart, 2017).

According to Weibell (2011), feedback was central to Thorndike's theory of learning in terms of law of effect. Thorndike believed, based on his own experimental evidence, that repetition in the absence of feedback does nothing to improve performance. In an experiment in which subjects were blindfolded and repeatedly asked to draw a four-inch line with one quick

movement, Thorndike discovered that doing so 3,000 times “caused no learning” because the lines drawn in the eleventh or twelfth sittings were “not demonstrably better than or different from those drawn in the first or second”. In this manner, Woolf (2020) argues that providing feedback to students that is relevant can significantly improve their learning and achievements. Several studies conducted over the last decade have investigated ways for providing feedback in educational settings to improve the student's motivation, performance, and self-esteem.

Hattie and Timperley (2007) as cited by Woolf (2020) suggest feedback needs to be specific and actionable to be most effective. In this manner, learners should be provided with information on what exactly they did well as well as insights into what they did wrong or may still need to improve. In another spectrum, letting students be involved in the feedback process helps them build self-awareness while also discovering that they can have the ability to decide on their own to better detect mistakes and identify what needs to be improved in their actions. It is extremely beneficial when feedback is valuable, comprehended, and acted upon. As crucial as the quality of the feedback is how students analyze, discuss, and act on it. Students gain an understanding on how to improve their learning by interacting with feedback (Nicol, 2010).

Molina (2014) argues that students have the ultimate expression on how to turn feedback to a positive action in bettering the performance outcome. As it promotes sense of self-efficacy, anyone who is struggling with the level of performance tends to get back on track until become satisfied with the results. Using feedback in a classroom setting can increase student's engagement, thus encourage a child invest time in wanting to learn more. It also enables students know the sufficient or insufficient efforts to improve, helps reflect upon own behaviors in aiming expected goals and stays motivated in the learning process. Amarles and Magno (2011) add that students must understand the feedback while teachers must also be consistent with their feedback to promote students’ ability to self-correct. Similarly, the Department of Education (DepEd) Order No. 73 s. 2012 established rules for assessing and grading learning outcomes in the K–12 Basic Education Curriculum underlining the value of providing feedback to students. In accordance with the idea of evaluation of learning, the findings of the assessment at each level should be immediately communicated to the pupils. Students must act based on the assessment results to understand what they need to work on next and to develop a strategy for addressing any learning deficiencies.

2.2. Task Performance

According to Hill (2016), performance task is a good method to get evidence about students' conceptual knowledge. It is a superior way to get evidence about what they can do with that information. Students can use their knowledge to solve a problem or exhibit a skill for an effective performance. Task performance is particularly beneficial for determining whether students have met a challenging learning criterion. It can assess their ability to apply what they have learned to solve challenges and evaluate their skills and abilities.

The first step in any performance task is the beginning of the goal. It informs the learner about the outcome as well as its purpose and development. It also helps students direct and feel more in control of the action. If someone puts their mind into their winning mindset, they can make the work easily and develop strategies in how they can perform better (Riopel, 2021). When students participate in relevant and engaging tasks or activities, they are referred to as participating in performance-based learning. This type of learning aims to assist students to acquire and apply their knowledge and become independent to do tasks. This allows a student to display evidence of comprehension through the transfer of skills with the knowledge given to them. The important part is to observe their process of learning since it may be utilized to give students feedback on how to improve their performance. A checklist or a tally could be used to track student's progress. The goal of performance task should be to improve rather than simply recall what students have learned (Kelly, 2019).

McTighe (2015) suggest that performance task is given to the students to test their understanding in the knowledge that they already have. It is an experience to develop more of their abilities and see how effective the learnings that they have acquired. It is also an opportunity for the students to genuinely apply skills to see performance outcome as evidence of mastery and knowledge. In a task performance, students are encouraged to learn by doing and using what they have acquired to achieve tangible results. They are asked to apply what they have learned and perform it in context in a certain task which serves as evidence of learning. It allows the student to put their skills and knowledge into practice, rather than just recalling them. It also necessitates an understanding of the task to urge them to focus on the quality of their work and to be aware of their own strengths and weaknesses (Magsino, 2017).

The recent study of Albay and Eisma (2021) found that providing students with relevant learning activities are vital in developing 21st century skills and competences. Because schools

are viewed as a compulsory place to hone these, students must be provided with tasks and assessment that equip them with skills to facilitate a 21st century classroom. Moreover, Republic Act 10533, otherwise known as Enhanced Basic Education Act of 2013, highlights the use of performance tasks to measure student's learning and skills in accomplishing practical tasks and in dealing with real-life problems.

2.3.Feedback and Task Performance

According to Nichol (2012), among other factors that may affect the performance task of an individual is the feedback. No one can perform to a high standard without knowing what the real conditions are in respect to the desired goals or outcomes. It is the feedback that keeps track of progress, allows for adjustments, and eventually signals when the goal has been met. A related study of Hattie and Timperley (2017) suggested that feedback can be used in schools to boost its efficacy. A conceptual study of feedback is given as the evidence of relating its effect on improving performance task. This evidence indicates that while feedback is among the key factors, it can be differentially efficient in terms of the form of feedback and the way it is provided. A feedback model that describes the basic features and situations that make it successful is then proposed, and some usually thorny problems are addressed, including the timing of feedback, and the consequences of positive and negative feedback.

The data presented by Department of Education (2015) show that providing information on student's performance is part of the teaching method. While it enhances the confidence level of a student to participate in class, it is also used by the teachers to give attention to students who need guidance on the progress. As teachers wants their students to be more confident, responsible, recognizing their efforts and interests, success will be a great big deal for them. Teachers can also provide feedback for the students to think first on the important details that is ahead of them to plan a response.

Woolf (2020) suggests that students should receive feedback that targets specific aspects of their performance and may refer to their previous actions to identify the ones that need improvement so they can adjust it beyond their past actions. Since learners can only progress if they know the problems to be solved, offering feedback is a way to determine their steps in learning. Providing comments that acknowledges a student's qualities, skills, and effort might help them feel more confident to improve. In this way, they can master a task and it will be easy

for them to do it when they encounter it again. It may also contribute to other learning areas and develop an effective learning environment (Thomson, 2020).

For the students to be aware of their progress and how much they have learned in the activity, it is important to inform the pupils when they made mistakes so they can learn from it and take corrective actions to never let the same mistakes to happen again. The knowledge that the students acquired from this may serve as their drive to learn and achieve more as their performance got better. In this case, teachers must constantly keep their track on their students' progress and give feedback to evaluate them to improve actions. Addressing the failures using feedback may avoid misconceptions and will help the students in decision making to provide solutions on how they will adjust their actions to achieve desired results (Alcantara & Roleda, 2016).

Several studies showed positive effects of feedback on student performance. For instance, Carcedo et al. (2019) found that those who received feedback showed increased levels of competence, perceived competence, and autonomous motivation compared to students without given feedback. Similarly, Goldhacker et al. (2014) investigated the role of informative feedback on the neural correlates of perceptual learning in a coherent-motion detection paradigm and found improved performance with increasing practice. The same findings were generated by Reis and Janssen (2010) that feedback or knowledge of results can increase performance on multiple activities and Aubin (2021) that feedback improved improve academic performance, enhance motivation, self-regulation, and efficiency, and allowed students to narrow the gap between their present and desired performance. In the teaching and learning, Jin (2012) compared the effects of teacher feedback and answers to the questions generated by students in a lecture-centered, large-sized class setting after considering the time the teacher spent providing feedback or answers. It was proven that teacher feedback to be better or equally effective on learning compared to the teacher answering the student’s questions in a lecture-centered, large-sized class with more than 50 students after considering the teacher’s time-on-task. Teacher feedback to the students’ questions saves more time and is more critical than the teacher answering the students’ questions.

2.4. Current state of Math Education

In March 2020, the World Health Organization (WHO) reported that COVID-19 had become a global pandemic (Cennimo, 2021). Consequently, it was advised that schools start

adapting virtual learning, concerning the safety of the students against being infected with the virus. It has affected the students' learning as well as the educators as it pushed them to adjust with their teaching strategies on how the students would be able to catch up with the lessons, particularly in Math. Students are at a disadvantage since the health crisis began, considering their low-achieved grades in their tests compared to the previous years (pre-pandemic years). A recent study about student competencies during the COVID-19 pandemic (Schult et al., 2022) revealed that the pandemic made a huge impact in hindering students to achieve great performances in mathematics for it reduces the time in learning and interactions between the students and the teachers. It resulted to low grades making them fall behind in their performance in the subject. This became a challenge for the teachers to build new methods on how they would be able to teach these students the lessons in the easiest way for them to understand it thoroughly at the same time making an opportunity to help themselves engage with the activities prepared for them (Sawchuk & Sparks, 2020).

Students getting low scores in tests are worrisome (Brody & Koh, 2020). The increase in falling grades is very alarming because it means that the student did not master their lessons in school, which may eventually lead to struggling and lack of knowledge in a certain subject. Giving the students the opportunity to improve with the help of their teachers by making strategies and helping those who need support may make up the work of the students to be better and achieve good results.

Understanding the concept of mathematics means knowing the whole idea behind it. For example, in learning multiplication enables students use critical and logical thinking skills to solve problems creatively. According to Johnson (2009), it is more helpful for the students to understand the concept of mathematics than just explaining the procedures of every math problem on how to get its solution. It is great that they have the knowledge to solve problems but having a deep understanding of the subject as well as expertly knowing its whole idea on how something works and not just knowing how to do it, is also necessary to help with the improvement of a student when it comes in learning. Since multiplication is introduced to students in third grade, this is an essential step in mastery of mathematics (Hogan, 2016). Understanding the concept, principles provided as well as to become proficient could make the students confident and competent with the use of their skills when applying what they have learned by providing opportunities to demonstrate what they have understand. It is already given

that teachers have thorough understanding of what they teach for it allows them to address those content that are hard to comprehend to be able for them to express and explain them in variety of ways so that students would excel and to succeed in the subject (Hervey, 2022).

2.5. Theoretical framework

The study is anchored on Edward Thorndike's law of effect on behavioral conditioning, which stated that behavioral responses closely followed by a satisfactory result were most likely to become established patterns and to reoccur in response to the same stimulus. Conversely, a behavioral response that produces a discomforting effect becomes less likely to occur again in that situation. When the response led to a negative outcome, an individual does nothing to preserve the result and will try to avoid it when the situation happened again. The greater the satisfaction or discomfort, the greater the strengthening or weakening of the bond between the response and the situation.

Feedback was the central idea in Thorndike’s law of effect. In relation to the present study, feedback was provided after the students accomplished their task on multiplication questions. Through feedback, they were able to identify their mistake, were informed about their progress, and make improvements on their current performance. Their knowledge of what should be done next time to get the right answers boosts their confidence while performing the tasks. Through utilizing the feedback given to them and seeing how it can positively or negatively affect their performance, behavioral response determines avoidance to have a higher accuracy of answers and therefore, a better performance.

3. Methodology

The study used experimental design to assess the influence of independent variable (feedback) to the dependent variable (task performance). In this design, there were two groups of participants called experimental group (students given the feedback) and control group (students without the feedback). The participants of the study were the grade 4 students of a public elementary school in Laguna, Philippines. From the total participant of 40 students, both the groups contained equal number of 20 participants. These participants were randomly chosen from eight sections of grade four students with a total of 226. Afterwards, the participants were

matched pair in terms of their grades to ensure similar distributions assigned to both the control and experimental groups of equal skills and knowledge.

The instrument used for the study was the researcher-made questionnaire composed of 15 items multiplication questions. The multiplication questions/problems contained five 1 by 1 digits, five 2 by 1 digits, and five 2 by 2 digits. The same instruments were used for both pretest and posttest. There were 3 questionnaires in total, each designed for each trial, and with equal level of difficulty. The questions were presented in a PowerPoint presentation and the participants were required to answer each item within the 45-second time limit. The questionnaire was validated by the school administrators, faculty members with years of experience, and some experts in the field of quantitative research who provided comments, suggestions, and recommendations to ensure content validity. Necessary permissions were secured for the implementation of the data gathering.

The study was conducted through Zoom meetings to ensure the safety of everyone amidst the pandemic. Even though the data collection was done virtually, the study ensured the equal conditions of the participants during the experiment. The experiment started at one o'clock in the afternoon and the participants were in the safety of their own home. The advisers of the participants were present during the meeting, and helped facilitate the attendance of the participants.

The administration of pretest and posttest for the control group was conducted during the first three days (April 16, 17, and 23, 2021), one day for each trial (3 trials in total). The same procedure was applied to the experimental group, which were scheduled on April 24, 30 and May 1, 2021. The data collection took 6 days to complete. The experimental group received feedback, which is the multiplication through hand technique. Finally, the scores were gathered at the end of each session. These scores were arranged in tables and further tested using statistical treatments.

4. Findings and Discussion

Table 1 shows the pretest mean scores of both the control group and experimental group. The results per student as per their participant number.

Table 1

Mean scores of the Pretest of Control and Experimental Group

Participant	Control Group	Experimental Group
	Scores	Scores
1	12.33	13.00
2	12.00	11.33
3	10.67	12.00
4	12.00	11.00
5	13.67	13.00
6	11.00	9.33
7	12.33	12.00
8	11.00	12.33
9	12.00	11.33
10	10.33	11.00
11	11.33	9.67
12	7.67	7.67
13	12.00	6.67
14	9.00	10.33
15	8.67	10.67
16	7.33	9.67
17	11.00	10.00
18	8.33	10.00
19	7.33	8.67
20	8.67	9.67
Overall Mean	**10.433**	**10.467**

The control group in pretest got the mean score of 10.433 while the experimental group got the mean score of 10.467. The experimental group's mean score is higher by 0.034 than the control group's mean for pretest. It is assumed that this low mean difference is because the two groups were equal in almost all aspect at the start of the experiment. During the experiment, both groups undergone the same procedure and treated in the same manner. They were presented with the same set of multiplication questions and since it is the pretest, no treatment was applied that could change the behavior of either group.

Participant 5 got the highest average score of 13.67 while participants 16 and19 got the lowest average score of 7.33 in the control group. On the other hand, participant 1 and 5 got the highest average score of 13.0 and participant 13 got the lowest average score of 6.67 in the experimental group.

Table 2

Mean scores of the Posttest of Control and Experimental Group

Respondent	Control Group	Experimental Group
	Scores	Scores
1	13.33	15.00
2	12.33	14.00
3	13.33	15.00
4	13.00	14.00
5	12.67	14.67
6	12.67	13.33
7	12.33	14.33
8	13.00	11.00
9	13.00	14.33
10	11.33	13.00
11	11.33	12.00
12	7.33	11.33
13	11.00	9.00
14	9.33	12.67
15	7.67	12.33
16	8.67	12.00
17	8.67	12.67
18	11.33	11.33
19	7.33	11.33
20	7.67	10.67
Overall Mean	**10.866**	**12.700**

Table 2 shows the mean scores of the posttest of the control group and experimental group. The mean of the control group was 10.866, while the experimental group was 12.700. The high mean difference of 1.834 suggests that the experimental group got higher score on their posttest because of the treatment applied, which is the feedback.

Participants 1 and 3 got the highest average score of 13.33 while participants 12 and 19 got the lowest average score of 7.33 in the control group. On the other hand, participant 1 and 3 got the highest average score of 15.0 while participant 13 got the lowest average score of 9.0 in the experimental group.

The feedback allows the students from the experimental group to realize what they have done wrong in the pretest and had the chance to correct it in the posttest. Teaching them multiplication through hand technique enabled them to solve the questions quickly and correctly the second time around. As a result, it helped them to improve not only their current skills and strategies but achieve their aim to have a better performance. Aligned and supported by the study of Molina (2014), it is through feedback that students become aware of their mistakes and drives them to change their negative actions into positive ones to improve their overall performance. It is also explained by Nichol (2012) that for the students to be kept in track of their progress, it is the feedback that allows them to modify their actions to achieve their desired results.

Table 3

t-test result of the Mean scores of the Pretest of Control and Experimental Group

Group	Mean	Difference	t- value	p-value	Interpretation
Control	10.433	0.034	0.087	0.932	Not significant
Experimental	10.467				

Legend: $p < 0.05$, significant; $p > 0.05$, not significant

Table 3 shows the t-test result of the pretest mean scores of control and experimental groups. The t-test result of the pretest mean scores of the control and experimental group reveals that the value of the test statistic is equal to 0.087 and the p-value is 0.932, which is greater than 0.05 level of significance. This indicates that there is a no significant difference between the pretest mean scores of the control and experimental groups. This implies that at the beginning of the experiment, both groups were of equal knowledge in answering the multiplication questions. This is because the participants were randomly assigned to the groups they were put into, and data obtained from them are what reflects the population.

Table 4

T-test result of the Mean scores of the Posttest of Control and Experimental Group

Group	Mean	Difference	t- value	p-value	Interpretation
Control	10.866	1.834	4.449	0.000	Significant
Experimental	12.700				

Legend: $p < 0.05$, significant; $p > 0.05$, not significant

Table 4 shows the t-test result of the mean scores of the posttest of control and experimental groups. The t-test result of the posttest mean scores of the control and experimental group reveals that the value of the test statistic is equal to 4.449 and the p-value is 0.000, which is less than 0.05 level of significance. This indicates that there is a significant difference between the posttest mean scores of the control and experimental group. This implies that there is a difference between the task performance of the control and experimental groups because of the treatment, which is the feedback.

Because the control group did not receive feedback on their performance, they were not able to adjust their math skills and remain stagnant relative to their overall scores. The study observed that these students from control group used manual computation all throughout the experiment, though it did not seem like a problem to them at first. But as the items become progressively harder, they were not able to answer them or even finish them within the allotted time. Their performance in the posttest did not become any better because they were not provided a way to do so. This implies that when there is no feedback given, their past actions on how they perform the task will still be the same or will be maintained and therefore, they learn nothing to correct those mistakes that can help them to improve their performance.

On the other hand, because of the feedback given to the experimental group, they had a chance to know their mistakes and adjust them to achieve the goals. As they became more acclimated in multiplication through hand technique, they became more confident and motivated in answering the multiplication questions resulting in higher scores. Based on the observation, the shift from manual computation to multiplication through hand technique gave them confidence to face the multiplication questions. As students feel they got the right answer, their behavior of using the hand technique strengthened. They utilized this newly found strategy to finish all the questions. Unlike the control group, the experimental group had a chance to change

their strategies in solving the multiplication questions. Evidence from the results shows that their response improved significantly because of the feedback that was given to them.

This result is congruent to the findings of Carcedo et al. (2019) that students who received feedback showed increased levels of competence valuation, perceived competence, and autonomous motivation. Similarly, Woolf (2020) found that giving feedback raises self-esteem because students become more aware on how they can avoid mistakes and how to improve their actions.

Table 5

T-test result of the Mean scores of the Pretest and Posttest of Experimental Group

Test	Mean	Difference	t- value	p-value	Interpretation
Pretest	10.467	2.233	9.012	0.000	Significant
Posttest	12.700				

Legend: $p < 0.05$, significant; $p > 0.05$, not significant

Table 5 shows the t-test result of the mean scores of the pretest and posttest of experimental group. The t-test result of the mean scores of the pretest and posttest of control group reveals that the value of the test statistic is equal to 9.012 and the p-value is 0.000, which is less than 0.05 level of significance. This indicates that there is a significant difference between the pretest and posttest of experimental group.

The feedback, which was the treatment applied for the experimental group, helped them analyze and reflect on what happened with their previous actions. Consequently, it made them learn from their mistakes, and it became their guide to correct and improve their scores on the task performance. The feedback, which was teaching them the multiplication hand technique, enabled them to solve the multiplication questions more correctly in a limited time. The participants, upon learning that there is an easier way to solve the problem, switched from computing the numbers using only paper and pencil to adding their hand as a tool for multiplication. As they use this technique, results of their performance improved. Not only their performance, but also their attitude in facing the task performance. Because they know now that there is an easier way to work with the questions, they become more confident and motivated to finish the task.

These results were similar to the findings of Molina (2014) that providing feedback encourages a person to be active and engage himself further to his task. It is the feedback that inspires an individual to accept his wrong actions and turn it into an accurate one which he will try to maintain. Similarly, Reis and Janssen (2010) also found that feedback or the knowledge of the results can increase performance on multiple activities.

Table 6

T-test result of the Mean scores of the Pretest and Posttest of Control Group

Test	Mean	Difference	t- value	p-value	Interpretation
Pretest	10.433	0.433	1.433	0.168	Not significant
Posttest	10.866				

Legend: $p < 0.05$, significant; $p > 0.05$, not significant

Table 6 shows the t-test result of the mean scores of the pretest and posttest of control group. The t-test result reveals that the value of the test statistic is equal to 1.433 and the p-value is 0.168, which is higher than 0.05 level of significance. This indicates that there is a no significant difference between the pretest and posttest of control group.

This implies that because the control group did not received feedback, which is the input of multiplication through hand technique, their performance did not improve in the posttest. Because there is no feedback, they had no idea how to correct or adjust their technique in answering the multiplication questions within the 45-second allotted time. No matter how many times they try to answer the multiplication questions, without the feedback, they did not achieve scores as high as the experimental group. This is explained by Weibell (2011) that repetition of behavior in the absence of feedback does nothing to improve performance.

5. Conclusion

This study found out that feedback has positive effects on the task performance of the grade 4 students in mathematics based from tests of difference between the pretest and posttest conducted. While the pretest showed no difference between the scores of the control and

experimental groups in answering the multiplication questions, the students from the control group had no change in their performance from the pretest to the posttest. However, the performance of the students who received feedback (experimental group) regarding their multiplication skills had improved compared to their performance in the pretest. This implies that providing students feedback regarding their performance give them idea on how to improve their behavior to attain their goal.

Generating premises from the results, this study recommends the use of feedback in all the activities of the students. The parents or teachers are encouraged to provide feedback to their students to work on their techniques in fulfilling a task or a goal. Similarly, the educational institutions may formulate interventions such as providing feedback across grade levels and subject areas. It should be normalized to provide feedback in the teaching and learning.

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