

Two-Track Method In Teaching Grade 1 Mathematics

Rufino M. Lorejo, EdD ¹, March Desiree S. Diola, MEEM ²

¹ Bohol Island State University-Main Campus, Tagbilaran City, Bohol ,
Philippines,
<https://orcid.org/0000-0002-2360-1373>
rufino.lorejo@bisu.edu.ph

² Bohol Island State University-Main Campus, Tagbilaran City, Bohol,
Philippines
Former Student, DepEd, Tagbilaran City, Bohol
<https://orcid.org/0009-0004-4718-0384>
marchdesiree@gmail.com

Abstract

This study focused on determining the effectiveness of the Two-Track method in teaching Grade One Mathematics based on the data of the experimental and control group's pretest and posttest performance in math subjects, pupil's interest towards Mathematics, and perception on the effectiveness of Two-Track method. The weighted mean, Mann-Whitney U test and Spearman rho test were used to analyze the data. This was conducted at Tagbilaran City East Elementary School, Tagbilaran City, Bohol for the school year 2019-2022 with 60 Grade One pupils. It was the interest of the researchers to determine whether pupils can learn more in mathematics using stories or by direct discussions of math concepts. It was revealed that the pupils' performance in math based on post-test scores was higher than the pre-test scores. On the other hand, the performance in math of the pupils in the experimental group is significantly higher from the control group showing that they learned better in math using the Two-track method than the traditional way of teaching. However, there was no significant difference in the pupil's interest in learning Mathematics between the two groups. Furthermore, pupil's perception towards effectiveness of the Two-Track method was significantly related to their interest in Mathematics. Thus, the Two-track method can be an effective alternative or supplementary tool in teaching mathematics especially for Grade 1 pupils.

Keywords: Two-Track Method, Teaching Grade 1 Mathematics, Primer Track, Story Track.

Introduction

First-grade pupils have a natural affinity for stories, making them an excellent tool for teaching mathematics. While many learners struggle with this subject, incorporating storytelling can help students not only understand mathematical concepts but also connect them to real-life activities as noted by Altieri (2009). Supported by Van den Heuvel-Panhuizen, Boogaard, and Doig (2009), it can also enhance their interest and motivation. By using storytelling as a teaching method, students can gain a deeper understanding of mathematics and share their newfound knowledge with others.

The Constructivism theory, as proposed by Brooks and Brooks (1999), posits that learners can construct their own understanding of knowledge through appropriate learning activities and a conducive learning environment. It is important to note that the school environment plays a crucial role in shaping a student's attitude, which in turn affects their academic performance (E. Afari, et. al. (2012)). Therefore, it is essential to consider the types of learning environments and teaching approaches used in schools. For instance, procedures such as finding equivalent fractions and comparing fractions require a conceptual understanding of fractions and are crucial in developing fractions sense (Fennell, F., & Karp, K. (2016)). As such, educators must create a learning environment that fosters critical thinking and problem-solving skills to enable students to construct their own understanding of knowledge

According to Ginsberg, Lee, and Boyd (2008), learning mathematics is a natural and developmentally appropriate activity for young children. This is because young children are naturally curious and eager to learn, and their brains are rapidly developing during this time. Therefore, introducing mathematics in early childhood can help children develop critical thinking and reasoning skills, which are essential for success in their formal schooling years. Moreover, Stramel (2021) emphasizes that mathematics is the foundation for success in formal education. By introducing mathematics early on, children can develop a strong foundation that will help them excel in their academic pursuits. This is why it is crucial to provide young children with opportunities to explore and engage with mathematical concepts in a fun and engaging way.

Utilizing storytelling as a teaching tool in mathematics has proven to be highly effective in enhancing students' comprehension of mathematical concepts. By incorporating rich stimuli into the learning environment, students can approach mathematical concepts with greater ease and understanding. Research conducted by Capraro and Capraro (2006) supports this notion, as they found that the use of storytelling contributed significantly to students' conceptual understanding of mathematics. Additionally, Casey et al. (2008) discovered that students' problem-solving abilities improved when storytelling was implemented in mathematics instruction. It is evident that incorporating storytelling into

mathematics education may lead to improved academic outcomes for students.

Ball (2010) emphasized that a student's knowledge and skills in mathematics can transfer across multiple languages, which is an asset for success in school and lifelong learning. It is crucial for educators to recognize the impact of attitudes on academic performance and to foster a positive learning environment that encourages students to develop a growth mindset.

Furthermore, the study revealed that students possess a genuine interest in mathematics, but their poor learning and examination strategies, as well as their limited understanding of the English language, have resulted in their failure in examinations. The survey responses indicated that students found mathematics enjoyable due to their self-confidence, motivation, and overall interest in the subject (Mazana, M. Y., Montero, C. S., & Casmir, R. O., 2019). It is crucial to provide students with the necessary support and resources to enhance their understanding of the language of instruction and develop effective learning and examination strategies. By doing so, students can unlock their full potential and achieve academic success in mathematics.

Research has shown that students who struggle with both reading and mathematics are more likely to experience difficulties with word-problem solving (Jitendra, DiPipi, & Perron-Jones, 2002). Therefore, it is crucial to incorporate teaching methods that not only enhance reading skills but also maintain mathematical concepts. One approach is to use stories to teach mathematics, as this can help students better understand and retain the material. By integrating these two subjects, educators can provide a more comprehensive and engaging learning experience for their students.

In 2013, Dr. Susan Malone and Dr. Dennis L. Malone published a groundbreaking teachers' guide titled "Two-Track Approach to Reading and Writing in Students' First Language (L1)." This guide identified two distinct approaches to teaching language: the emphasis on meaning, or "Focus on whole texts," and the emphasis on accuracy, or "Focus on parts of the language." In this study, the Two-Track Approach consists of two distinct tracks: the story track and the primer track. The primer track is designed to ensure that students learn the intricacies of language accuracy, while the story track is focused on helping students find meaning in the concepts they are learning, and apply them to real-life situations. By incorporating both the story track and the primer track, teachers may help their students achieve a more well-rounded understanding of language, and set them up for success in their academic and professional lives.

To ensure that Grade 1 Mathematics instruction is meaningful, the researchers are interested in implementing the Two-Track Method, which involves utilizing both a story track and a primer track. The goal is to

determine whether this strategy is effective in enhancing student learning and increasing their interest in the subject of mathematics. Researchers will be assessing student perceptions of the method's effectiveness and analyzing its impact on their academic performance. By utilizing this innovative approach, it is hoped to improve the quality of mathematics education for our young learners.

Methods

The researcher utilized a specific research method, namely the two-group pretest-posttest experimental design, to investigate the effectiveness of the Two-Track Method in teaching Grade 1 Mathematics. The study involved two groups, class A and class B, both of which underwent a pre-test to assess their background knowledge in Mathematics. The two groups were then subjected to either the Two-Track Method or the conventional method in five separate sessions. After the treatment, a post-test was administered to both groups. The Grade 1 pupils were then asked to provide their feedback on the Two-Track Method and their perception of it as a teaching strategy in Mathematics through questionnaires.

The researchers employed purposive sampling to select participants from the least performing schools based on the Division Assessment Test, specifically in Mathematics. The study involved 60 Grade 1 learners who were identified based on the Mid-Year Division Assessment Test conducted in October 2019, which showed that the school obtained an MPS in Mathematics of 73.51.

The participants were given a teacher-made test in Mathematics and attitude and perception questionnaires. The Mathematics Performance test consisted of 24 items aligned with the K-12 competency matrix, which had not yet been discussed by their teacher. The item analysis was conducted through a pilot testing, and the reliability level was computed using the Spearman-Brown formula of Split-Half Reliability Test, which yielded a good reliability level of 0.76.

The Mathematics Attitude Scale was used to measure the learners' interest in Mathematics during the study. This instrument is a 19-item test that uses 3-point scale criteria. It was developed, validated, and standardized by Aiken and Dredger (1972) and was previously used by Lowell et al. (2005) in a similar study. The researcher also translated the material into the mother tongue language (Sinugbuanong Binisaya) and modified the number of choices for response.

The Perception on Effectiveness of Using the Two-Track Method Scale consisted of 15 items that were utilized to gauge learners' perception of the Two-Track Method's efficacy in teaching Mathematics. Following pilot testing using Cronbach Alpha, the instrument's reliability coefficient was reported to range from 0.81 to 0.89. This scale was an essential tool in evaluating the effectiveness of the Two-Track Method in Mathematics instruction. Its reliability coefficient indicates that it is a dependable

instrument for measuring learners' perceptions of the method's efficacy. By utilizing this scale, educators can gain valuable insights into how their students perceive the Two-Track Method and make informed decisions about its implementation in the classroom.

Result and Discussion

The data presented were analyzed and interpreted in the light of the inquiries of the study.

Table 1. Pretest and Posttest Performance of the Pupils in Two Groups

N = 60

Range	Description	Control Group				Experimental Group			
		Pre-test		Post-Test		Pre-test		Post-Test	
		f	%	f	%	f	%	f	%
0-74	Did not Meet Expectation	28	90	8	26	29	100	5	17
75-79	Fairly Satisfactory	3	10	19	61	0	0	21	72
80-84	Satisfactory	0	0	3	10	0	0	1	3
85-89	Very Satisfactory	0	0	0	0	0	0	0	0
90-100	Outstanding	0	0	0	0	0	0	0	0
	Average	56.99=Did not Meet Expectation		68.28=Did not Meet Expectation		41.01= Did not Meet Expectation		71.98= Did not Meet Expectation	

Table 1 depicts the frequency of the performance of the pupils taught in traditional (control) and using the Two-Track Method (experimental) group before and after exposure to the lessons. During the pretest, it reveals that 28 out of 31 or 90% of the pupils' performance in the control group were described as "did not meet expectation" while only 3 or 10% got a "fairly satisfactory" score. In overall, the control group had an average percentage rating of 56.9 for all pupils in a group described as "did not meet the expectation".

Meanwhile, on the experimental group, it reveals that 29 out of 29 or 100% of the pupils' performance described as "did not meet expectation" on the pretest or before exposure to the Two-Track Method with the average percentage rating of all pupils of 41.01 described as "did not meet the expectation". Both groups had relatively similar performances before they were introduced to the lessons. The performance of both groups portrays that the two groups were comparable in terms of achievement level. The two groups in the pretest result were at the level of "Did not Meet Expectation" but slight variance on the numerical values.

The post-test shows that 3 or 10% of the control group got a “satisfactory” score and the majority or 19 out of 31 got a score of “fairly satisfactory” with the average percentage rating of all pupils of 68.28 described as “did not meet the expectation”. On the other side, there was 1 pupil or 3% of the experimental group who got a “satisfactory” score and majority or 72% of them got a “fairly satisfactory” score but 5 pupils or 17% did not meet the expectation. Mutually, the performance of the pupils exposed with the conventional method or the control group and the performance of the pupils exposed to the Two-Track Method or the experimental group had improved over time. Hence, learning occurs in both ways of teaching.

Table 2 shows the interest of control and experimental groups towards learning Mathematics. Pupils had a positive reaction towards learning Mathematics lessons since the composite mean is 2.53 described as “agree” which means they showed interest in the subject most of the time.

The cognitive component reflected in item number 2 earned the highest weighted mean of 2.85 and rated as “agree” means pupils showed interest most of the time in the belief that Mathematics is practical. Hence, pupils believe that Mathematics is relevant to putting the concepts to practice. The item got the lowest weighted mean of 2.13 or described as “neutral” is an affective manifestation which means that they sometimes feel that they cannot see much value in some topics in Mathematics. Therefore, though they believe that Mathematics is practical, they cannot see much value in some topics in the said subject.

Table 2. Control and Experimental Group’s Interest in Mathematics

Items	Experimental Group N=29		Control Group N=31		Overall Result	
	WM	DV	WM	DV	WM	DV
1. Math is quite difficult, but it is also rewarding.	2.59	A	1.94	N	2.26	N
2. I like math because it is practical.	2.79	A	2.90	A	2.85	A
3. I like math more than any other subjects.	2.59	A	2.45	A	2.52	A
4. I like math because I like numbers.	2.90	A	2.71	A	2.80	A
5. Mathematics is fascinating and fun.	2.69	A	2.74	A	2.72	A
6. I don’t feel sure of myself in math subject.	2.14	N	2.39	A	2.26	N
7. I can’t see much value of some topics in math.	2.10	N	2.16	N	2.13	N
8. I can’t see challenges in mathematics.	2.03	N	2.45	A	2.24	N
9. I like mathematics very much.	2.69	A	2.58	A	2.64	A

10. Mathematics is something that I enjoy a great deal.	2.79	A	2.61	A	2.70	A
11. Math is very interesting to me.	2.86	A	2.29	N	2.58	A
12. I never get tired of solving math exercises.	2.69	A	2.77	A	2.73	A
13. Math excites me.	2.79	A	2.52	A	2.65	A
14. I have never liked mathematics.	2.31	N	2.68	A	2.49	A
15. I have always been tired in solving mathematical problems and exercises.	2.10	N	2.39	A	2.25	N
16. Math subject is very useful in our daily activities.	2.93	A	2.45	A	2.69	A
17. I like math because it is necessary for our daily living.	2.79	A	2.48	A	2.64	A
18. It makes me nervous to even think about math.	2.31	N	2.68	A	2.49	A
19. I feel sleepy when thinking about figures / numbers.	2.10	N	2.61	A	2.36	A
Composite Mean	2.54	Agree	2.52	Agree	2.53	Agree

Legend:

1 (1-1.66)	Disagree	Did not show interest
2 (1.67 – 2.33)	Neutral	Showed interest but gets distracted/bored sometimes
3 (2.34 – 3.00)	Agree	Showed interest most of the time or all the time

It has been confirmed that students must not only comprehend and learn mathematical concepts, but also be able to connect mathematics with everyday life situations and effectively communicate their mathematical knowledge to others (Altieri, 2009). This highlights the importance of not only understanding mathematical principles, but also being able to apply them in practical situations and effectively convey them to others. By doing so, students can develop a deeper understanding of mathematics and its relevance in the world around them.

The table 3 shows the experimental group's perception towards the use of Two-Track Method in teaching grade one Mathematics after they have been exposed to it. The two categories which were gauged in terms of learners' perception are the learners' participation or involvement and the learners' understanding. It reveals that pupils have a positive reaction towards teaching Mathematics using stories since the composite mean is 3.11 described as "agree" that is effective. The pupils listened during stories and discussions which is rated 3.55 described as "strongly agree". Hence, pupils were eager or curious during the class discussion and

storytelling. Also, pupils believed that they work well with other class members when a teacher introduces stories in Math lessons which is rated 3.45 described as “strongly agree” thus, making the method used very effective. In addition, pupils considered they can help other class members when having trouble with their work by relating stories they heard which is rated 3.28 described as “strongly agree”.

Table 3. Perception on the Effectiveness of the Use of Two-Track Method in Teaching Grade One Mathematics

N=29

Items	WM	Description	Interpretation
1. Through the stories that are related to Math, I can ask questions in class.	2.97	A	E
2. I can discuss ideas related to the stories in Math class.	2.90	A	E
3. I can apply my past experience to the work in this class.	3.14	A	E
4. I am able to share stories with my friends/parents at home.	3.10	A	E
5. I can work well with other class members if there are stories in Math lessons.	3.45	SA	VE
6. I can find it easy to get good grades in mathematics if there are stories told by the teacher.	3.07	A	E
7. I can help other class members who are having trouble with their work because of the story heard.	3.28	SA	VE
8. I am able to participate in this class through answering and asking questions about the stories.	3.10	A	E
9. I can solve Math problems faster with the use of Two-Track Method or the use of stories.	2.90	A	E
10. I am confident in sharing my knowledge with my classmates because of the storytelling.	3.00	A	E
11. I enjoy the class more because of the stories.	3.24	A	E
12. I listen during stories and discussions.	3.55	SA	VE
13. I feel that I will pass mathematics with ease through the stories heard.	2.79	A	E
14. I remember the topic in this class through storytelling.	3.21	A	E
15. The teacher's questions/ stories help me to understand better in Math.	3.00	A	E
Composite Mean	3.11	A	E

Legend:

1 (1-1.74)

Disagree (D)

NE - Not Effective

2 (1.75 – 2.49)	Slightly Agree (SLA)	LE - Less Effective
3 (2.5 – 3.24)	Agree (A)	E - Effective
4 (3.25 – 4)	Strongly Agree (SA)	VE - Very Effective

On the other hand, pupils perceive they will not pass Mathematics with ease through the stories heard since it was rated the least. This finding is in consonance with Van den Heuvel-Panhuizen, Boogaard, and Doig (2009) who noted that the incorporation of storytelling has proven to be effective in increasing the students' level of interest and motivation. This finding highlights the importance of utilizing innovative teaching methods to engage students and enhance their learning experience. This research underscores the value of incorporating creative and engaging teaching strategies to promote student success.

Table 4 illustrates the difference between the performance of the traditional teaching (control group) and the Two-Track Method (experimental group) in the pretest or before exposure to the lessons. The sum of ranks in the group with Two -Track Method is 643.00 while in the control group, their sum of ranks is 1187.00 having the experimental group of 22.17 mean rank while the mean rank of the control group is 38.29.

Table 4. Difference on the Pretest Result between Experimental and Control Groups

N=31

Groups	Mann-Whitney U	Wilcoxon W	Z	Asymp. Sig. (two-tailed)	Decision	Interpretation
Experimental Mean Rank = 22.17 Sum of Ranks = 643.00	208.000	643.000	-3.591	0.000	Significant, Ho: Rejected	Test Result from the Control Group is Higher than the Experimental
Control Mean Rank = 38.29 Sum of Ranks = 1187.00						

The computed z-value is -3.591 which has the p-value of 0.000 and still less than the alpha level of 0.05 confirms that the result is statistically significant. It further shows that the pretest result from the control group is higher than the experimental group. This manifests the idea that before the implementation of the experiment, the control group is more knowledgeable than the experimental group.

According to Casey et al. (2008), the use of storytelling in mathematics instruction has been found to enhance students' problem-solving skills. This finding suggests that incorporating narrative elements into lesson plans can be an effective strategy for educators seeking to improve their students' academic performance. The study conducted by Casey et al. (2018) demonstrated that students who were taught using storytelling methods showed a greater ability to apply mathematical concepts to real-world scenarios. This indicates that storytelling can help students better understand the practical applications of mathematical concepts, which can ultimately lead to improved problem-solving abilities.

Table 5 shows the difference of the test result before and after exposure to the two-track method in Mathematics in the experimental group. It reveals that in the pretest, the sum of ranks of the group is 488.00 and has the mean rank of 16.83 only. After exposure to the two-track method,

Table 5. Difference between the Pretest and Posttest Result of the Experimental Group

N=29

Groups	Mann-Whitney U	Wilcoxon W	Z	Asymp.Sig. (two-tailed)	Decision	Interpretation
Pretest Mean Rank = 16.83 Sum of Ranks = 488.00	53.000	488.000	-5.780	.000	Significant, Ho: Rejected	Posttest Result is Higher than the Pretest Result
Posttest Mean Rank = 42.17 Sum of Ranks = 1223.00						

The sum of ranks of the group in the posttest is now 1223.00 with a mean rank of 42.17.

It also shows that the Z test value of Mann-Whitney and Wilcoxon test of -5.780 has the p-value of 0.000 which is less than the alpha level of 0.05 thus the difference of the result is significant. It means that there is a significant difference between the pretest and posttest of the learners' Math performance in the experimental group before and after exposure to the two-track method. It further suggests that the group gained higher scores in the posttest which means that learning took place in the applied method.

Table 6 displays the difference of the test result before and after exposure to the lessons with the use of the conventional method in the control group. It reveals that in the pretest, the sum of ranks of the group is 707.50 and having the mean rank of 22.82. After exposure to lessons, the sum of ranks of the group in the posttest is now 1245.50 with a mean rank of 40.18. It also reveals that the z-value of -3.850 has a p-value of 0.000 for the asymptotic significance for two-tailed test which is less than the alpha level 0.05 thus the difference of the result is significant. It means that there is a significant difference between the pretest and the posttest of the learners' Math performance in the control group before and after exposure to the lesson. It further suggests that the group gained higher scores in the posttest which means that learning took place in the applied method.

Table 6. Difference between the Pretest and the Posttest Result of the Control Group

N=31

Groups	Mann-Whitney U	Wilcoxon W	Z	Asymp. Sig. (two-tailed)	Decision	Interpretation
Pretest Mean Rank = 22.82 Sum of Ranks = 707.50	211.500	707.500	-3.850	0.000	Significant; Ho: Rejected	Posttest result is higher than Pretest
Posttest Mean Rank = 40.18 Sum of Ranks = 1245.50						

According to Ginsberg, Lee, and Boyd (2008), learning mathematics is a natural and developmentally appropriate activity for young children. This means that children have an innate ability to understand mathematical concepts and should be encouraged to explore and engage with them from an early age. Mathematics is a fundamental subject that plays a crucial role in daily lives. It helps make sense of the world around us and enables us to solve problems and make informed decisions. By introducing children to mathematics at a young age, we are setting them up for success in their future academic and professional endeavors.

Table 7 shows that the Z test value of Mann-Whitney and Wilcoxon test of -5.640 is greater than the critical value of -1.96 thus the null hypothesis is rejected. Therefore, there is a significant difference between the mean difference of the pretest and posttest of the learners' Math performance between the class employed with the Two-Track Method and without the Two-Track Method. It further suggests that the experimental group has higher differences which means that the Two-track Method is more effective than the conventional method.

Utilizing storytelling as a teaching tool in mathematics has proven to be an effective method for enhancing students' comprehension of mathematical concepts. By incorporating rich stimuli into the learning environment, students can approach mathematical concepts with a greater level of engagement and understanding. This approach has been supported by research conducted by Capraro and Capraro (2006).

Table 7. Difference of the Mean Difference of the Pre-test and Post-test between Experimental and Control Groups

N=60

	Mann-Whitney U	Wilcoxon W	Z	Critical value	Decision	Interpretation
Experimental N = 29 Mean Rank = 43.59 Sum of Ranks= 1264.00	70.000	566.000	5.640	-1.96	Significant, Ho: Rejected	Difference in Experimental group is higher than Control
Control N= 31 Mean of Ranks = 18.26 Sum of Ranks = 566.00						

In educational settings, these tools are frequently utilized as incentives for students who complete their work early or to foster a positive outlook towards mathematics (Bragg, 2007).

Table 8 shows that z test value of -0.067 and is within the non- rejection region since it does not reach beyond the critical value of -1.96 thus, there is not enough evidence of rejecting null hypothesis. This denotes that there is no significant difference in the interest in the mathematics subject between the pupils employed with Two-Track Method and pupils not employed with Two-Track Method.

Table 8. Difference on the Interest in Mathematics of the Pupils between Experimental and Control Groups

Groups	Mann-Whitney U	Wilcoxon W	Z	Critical Value	Decision	Interpretation
Experimental N = 29 Mean Rank = 30.66 Sum of Ranks = 889.00	445.000	941.000	-0.067	-1.96	Insignificant, Ho: Accepted	The same
Control						

N = 31					
Mean Rank = 30.35					
Sum of Ranks = 941.00					

The result also shows that both groups have similar interest towards Mathematics. This supports the result of their performance in the test after the exposure of the lessons despite different approaches as both groups showed progress in comparison with their pretest.

This coincides with the studies by B. Kaur, et. al (2016) who reported that the surveys in the interest of the group exposed to direct instruction and the interest of the group applied with a two-track method showed no significant difference as both groups showed positive attention towards Mathematics. The study of P. Di Martino, et.al (2011) further supports the claim that pupils have the same interest towards the subject eliciting that interest towards Mathematics is the bridge between beliefs and emotions and a result of an individual's belief system regardless of any teaching methods applied.

Table 9 shows that the p-value of 0.001 is less than the significance level ($\alpha = 0.05$) thus, the null hypothesis is rejected. Therefore, there is sufficient evidence to conclude that there is a significant relationship between learners' interest in Mathematics with the use of Two-Track Method and their perception of the Two-Track Method. It implies that because learners find storytelling, a salient feature in the Two-Track method, interesting to them, their interest in Mathematics was also developed. The results emanating from the research conducted by Paul, et.al. (2014) aligns the results of these findings indicating that when there is a statistically significant interest of the learners, their perception of the effectiveness of the Two-Track method in Mathematics is also significantly positive.

Table 9. Relationship between the Attitude of the Learners in Mathematics and Perception on the Effectiveness of the Two-Track Method

(N=29)

Variable	Spearman rho test value	p- value at $\alpha=0.05$	Decision	Interpretation
Attitude in Math and Perception on Effectiveness of the Strategy	0.584	0.001	Significant, Ho: Rejected	Related

Based on the results of the study conducted by the researcher, the differences of the pretest and posttest in the control group and the experimental group shows that learning is evident even if they differ in the teaching strategy being used with them. The control group was

administered with direct instruction, a time-tested and proven to be effective teaching strategy. However, even if the learners in the control group gained higher scores during the posttest, the results showed that the experimental group gained higher mean differences which showed that the learners in the experimental group who were administered with the Two-Track method learned better than the learners administered with the direct instruction.

The Two-Track method not only enhances the understanding of mathematical concepts but also provides engaging stories that captivate students' interest. As a result, the study conducted by Mazana, M. Y., Montero, C. S., & Casmir, R. O. (2019) confirms that students who enjoy mathematics, possess self-confidence, and are motivated to learn, tend to perform better in the subject.

Conclusions

The study's findings suggest that the Two-Track Method is a more effective teaching strategy than the conventional method. This approach not only enhances the performance of pupils but is also perceived as effective by learners. The Two-Track Method generates excitement and interest among pupils, leading to better performance in class.

Interestingly, the results indicate that both groups share a similar interest in Mathematics. This finding is consistent with their performance on the test after being exposed to the lessons, even though they were taught using different approaches. Both groups demonstrated progress when compared to their pretest scores.

Recommendations

Therefore, the Two-Track Method is a viable option for teachers to use as a substitute or reinforcement to the conventional method when teaching Mathematics. This approach can lead to improved academic outcomes for pupils. Teachers can use this method to create a more engaging and interactive learning environment, which can help pupils to develop a deeper understanding of Mathematics. By using the Two-Track Method, teachers can help pupils to achieve their full potential and succeed academically.

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