

NAVIGATING THE INFLUENCE OF TEACHERS ON STUDENTS' INTEREST IN MATHEMATICS: A PHENOMENOLOGICAL INQUIRY

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ABSTRACT

The study delved into students' experiences of how teachers influenced their interest in Mathematics. It utilized a phenomenological qualitative research design. In-depth interviews were used to gather data and information from 12 student informants, who were purposely selected from Grade 7 to Grade 12 at Jose Tuason Jr. Memorial National High School, enrolled in the school year 2022-2023. Findings suggested that teachers influenced students' interest in Mathematics due to their teaching techniques, expertise, points added for participation, the anticipation of learning, reward systems, self-motivation, activities, and the use of online assessment platforms. Students were grateful, inspired to learn, and hopeful to have the same teacher in the future. Teachers' techniques to retain and increase students' interest include hands-on activities, the use of online assessment platforms, peer tutoring, attention-catching phrases, the use of an alarm bell, rating students' participation, being friendly and approachable, pushing students to lead, asking them to collect papers, supporting students' activities, and providing encouragement and support. For students to become eager to attend mathematics class, teachers should avoid monotonous activities and be more considerate, approachable, humorous, cool-tempered, and understanding. Hence, teachers' expertise, techniques, ways of motivation, rapport, and behaviors create a strong influence on students' interest in Mathematics.

Keyword: -Students' interest, teacher's techniques, suggestions, phenomenological study

1. INTRODUCTION

Student's interest in Mathematics is extremely powerful in terms of achieving educational goals. Connecting mathematics concepts to students' interests leads to increased engagement, as they spend greater amounts of time thinking, discussing, and developing significant ideas. According to Azmidar (2017), students' interest in learning Mathematics keeps low because they assume it simply consists of numbers, formulas, and abstract theorems that are difficult to comprehend. As a result, students tend to have low academic performance because they lack interest and motivation to learn the concepts in the subject matter. He added that the teacher and the teaching approach used in teaching have a strong influence on students' interest in Mathematics.

In Isabela Philippines, one of the head teachers in Mathematics expressed his opinion about the students who escaped mathematics classes. According to him, a student who dislikes or who fears Mathematics may soon transform or change his/her perception towards the subject, and the enduring stereotype that Mathematics is the most difficult subject to master should be disproved. He also mentioned that mathematics instruction and learning at the

primary education level require a solid foundation. Teachers should incorporate realistic and practical applications and should lead by example in this regard so that students will begin to develop their interest to learn and love the subject (Belmonte, 2020).

Many teachers in Tagum South District have observed students' lack of interest in attending mathematics classes. One of the teachers expressed concern about how to arouse students' interest. Students in her mathematics class, do not seem to participate, doze, or appear tired during the discussion which leads to poor academic performance as experienced without the knowledge of the teacher, students escaped classes. Indeed, Mathematics is one of the escaping times of students. I personally observed and experienced the students' various escape mechanisms, particularly in this subject. Students would rather sleep, go out, or play with their gadgets than solve mathematics problems. In addition, as I surveyed one mathematics class at Jose Tuason Jr. Memorial National High School, it was revealed that 35.56% of the students considered Mathematics uninteresting and irrelevant to them and 33.33% do not want to be in mathematics class.

There is a need to hear from the students about how they feel about this problem. It is then imperative for mathematics teachers to discover ways to involve students in the learning process and to identify outlets that can improve their motivation, which may help build their interest in Mathematics.

2. METHODS

This study employed a qualitative research design. Qualitative research is an approach to exploring and understanding the meaning of individuals or groups ascribe to a social or human problem (Creswell, 2013). The phenomenological design which I believed is appropriate to address the meanings and perspectives of the research informants. This phenomenological design examines human lived experiences by focusing on experiences, events, and occurrences with little or no regard for the physical world outside of the subject (Armstrong, 2010). In this study, I utilized phenomenological design to seek information from the students' experiences on how teachers influenced their interest in Mathematics. Moreover, I gained insights and documented the participants' experiences through an in-depth Interview (IDI) to determine how teachers influenced students' interest in Mathematics.

3. FINDINGS AND DISCUSSION

Participants' experiences on how their teachers influence them to be interested in Mathematics

The time interest in the mathematics subject started. The emerging themes in this structured analysis were the teacher's teaching techniques, the expertise of the teachers, just starting to like mathematics, and being interested in mathematics since. These were the times when students began their interest in the mathematics subject. This demonstrates that the majority of participants were interested in mathematics because of the teacher's teaching techniques. Others, on the other hand, have taken an interest in mathematics since then. Furthermore, several students just started their interest in the mathematics subject due to the expertise of the teachers in teaching the subject. According to Akinoso (2019), a proficient mathematics teacher can instruct students in mathematical concepts, ideas, and principles using a range of techniques, styles, examples, and illustrations. By using the right methods, strategies, and techniques for classroom instruction, a skilled mathematics teacher can guarantee students' success in the subject and increase their interest in learning mathematics.

Ways in which teachers excite students to attend mathematics class. The emerging themes were points added to student participation, looking forward to learn, the reward system, and being self-motivated. The study revealed that most students were excited to attend mathematics class due to the additional points added for their participation. Another reason was the teacher's reward system in the classroom. Self-motivation was also evident in the responses of this study; students became thrilled to attend mathematics class since they had already committed to it. It was also evident that students were eager to learn and felt the need to attend mathematics class. By using positive reinforcement, such as praise and rewards, teachers can gradually improve their classroom environment while also fostering more positive interactions with students and stimulating their interest in the subject matter. He went on to say that while giving and receiving praise and rewards may appear like an easy tactic that teachers can do on their own, it is actually a complicated reciprocal process involving both the teacher and the students (Conroy, 2016).

Ways used by teachers to encourage students to participate in class. The emerging themes were activities, a rewards system, board work, use of online assessment platforms, and self-motivation. The study showed that students were encouraged to participate in class through activities. Activities can help students comprehend what they're learning on a deeper, more integrated level, resulting in a more successful and rewarding classroom

experience. The same is true for the teacher's reward system, which was implemented in the classroom. This system was used to encourage desirable behaviors and create an incentive-based learning experience. Another way was the utilization of board work which ignites students to participate in the class. The use of an online assessment platform was also evident in this study. This is done when gadgets are available in hand. Lastly, through self-motivation, the students in the class were encouraged to participate. Increasing motivation also requires expressing gratitude in various ways, such as through rewards or praise. One educational tool that can inspire students to perform better is reward (Hamid, 2006).

Feelings about the ways teachers used to keep students interested in mathematics. The emerging themes were gratitude to teachers, hope to be with the same teacher, and inspiration to learn. The findings revealed that students were grateful to their teachers because of the patience and compassion shown by the teachers. At the same time, students were hopeful to be with the same teacher so that they could understand mathematics lessons easily and continue to like the subject. It was also evident that the students were inspired by their teachers, with some even choosing to pursue education courses in college. To further support learning, educators need to be capable, confident in their abilities, in charge of the classroom, compassionate and respectful of each student, and adaptable in their choice and application of instructional strategies (Sauer, 2021).

Teachers' techniques for retaining or increasing students' interest in Mathematics

Mathematics class activities found interesting. The emerging themes were hands-on activities, the use of online quiz platforms, and peer tutoring. The result exposed that majority of the students preferred hands-on activities, students actively participate in more practical and inventive forms of learning. The use of online quiz platform was also considered to be an interesting activities for the students because it escalates enjoyment. Lastly, students have the confidence to ask questions to their peers, and it is easy to make a point that might be harder for a real teacher. Computer programs and practical challenges and activities were among the twenty-first-century teaching strategies used in the classroom because teachers are helping students develop the necessary skills by improving their ability to use technology and providing opportunities for meaningful, real-world application of learning (Gentry, 2014).

Ways in which mathematics teachers keep students' attention. The emerging themes were utter attention-catching words, use of alarm bell, rating students' participation, use of seat plan, and listening to the discussion. The study revealed that uttering-catching words and the use of an alarm bell can be used to divert students' attention. Students who are constantly exposed to these techniques are easy to manage and capture their focus. The use of a seat plan was also present in the findings. The best sitting location will differ depending on the student's personal demands and the characteristics of the classroom. Another emerging theme was rating students' participation, it is better to stop and then check the students about the particular procedure to test their understanding of the lesson. Finally, listening to the discussion could also be a great way to catch students' attention as manifested in their responses. According to Recard and Nathania (2021), attention grabbers are useful ways to attract students' attention in an emergency. They also make it easier to manage the classroom. The teacher gets easily the attention of the learners by uttering attractive and rhyming words. Students who are used to these techniques are easy to manage compared to the class who does not expose to this technique.

Ways which teachers establish rapport in class. The emerging themes were being friendly and approachable, being pushed to lead, being asked to collect papers, being supportive of students' activities, and providing encouragement and support. The study revealed that being a friendly and approachable teacher was the most evident response from the students. Being pushed to lead and being asked to collect papers were ways of expressing the teacher's expectations and trust in the students. Other emerging themes shared common grounds of support and encouragement, which allow the students to feel empowered and to believe in themselves. Teachers' immediate behaviors raise students' emotional arousal, which increases their attention and involvement. Teacher's immediacy behaviors, both verbal and nonverbal, give the impression of a close psychological bond between the teacher and the students. Students are drawn to teachers who are extremely immediate because these acts foster a sense of like and encourage the student to approach the teacher rather than avoid him or her (Mazer, 2013).

Participants' suggestions to influence their interest in Mathematics

Suggestions to mathematics teachers for students to become eager to attend classes. The emerging themes were getting away with monotonous activities, teachers being more considerate, and being comfortable with the teacher's approach. The findings showed that most of the students do not like monotonous activities. Students seek a range of teaching activities to help them develop an interest in the subject matter, particularly Mathematics. Another

emerging theme was teachers should be considerate, and situations must be changed in favor of the students. Teachers must be mindful of their students' thoughts and feelings. Moreover, being comfortable with the approach of the teacher is just as crucial as information in building students' confidence in studying more about the subject matter. According to Yussif (2022), students are eager to learn if they exposed to variety of materials and learning tasks, they are more likely to pay attention in class and retain more information. Furthermore, students who are interested in learning are more likely to be motivated to excel academically and achieve their goals. Improving students' cognitive efficiency is another motivator for increasing their interest in learning. When students are motivated and interested, they learn faster and retain more information. Additionally, students who are cognitively efficient have better decision-making and problem-solving abilities.

Behaviors of mathematics teachers students like. The emerging themes were teachers with a sense of humor, cool-tempered teachers, and understanding teachers. According to the findings of the study, most students believe that Mathematics teachers should have a sense of humor when teaching the subject. The students clearly emphasized that the word "enjoy" relates to their interest. It can also be noted that students like teachers who are cool-tempered. Interacting with students demands a lot of patience, which refers to a teacher's uncomplaining nature, self-control, and persistence. While it is natural for teachers to be irritated and upset sometimes, meeting disquieting situations with cool-headedness is an indicator of moral strength and fortitude. Finally, students also suggested that a teacher should be understanding, as Mathematics is difficult to learn and requires a lot of effort to grasp its concepts.

Using humor in the classroom is also a great way to maintain authority while maintaining student attention, but it's important to keep the humor age appropriate. The recognition of the audience is the most important element. The idea of using humor to adapt lessons to specific interests and backgrounds should be adopted by educators. Humor can be used as a teaching tool and as a "breather to the brain" while lessons are being presented. Additionally, humor is a practical and efficient teaching tool (Thambi & Franklin, 2015). Moreover, according to Burden and Byod (2017) emphasized that understanding teachers provides encouraging words and suggestions that help students feel supported in their efforts.

4. CONCLUSIONS

The study concludes that the majority of the participants developed an interest in Mathematics due to the expertise of the teachers and their teaching techniques. As a result, students were grateful, wanted to have the same teacher the next school year, and were inspired to take education courses or any related mathematics courses in college. Hence, teachers' expertise, techniques, ways of motivation, rapport, and behaviors create a strong influence on students' interest in Mathematics.

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