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Teachers' Perspectives on the Root Causes, Behaviors, and Interventions for Students' Lack of Self-Confidence in Mathematics

Ivonne E. Semila

Abstract:- This phenomenological qualitative study aimed at providing an in-depth understanding of the root cause of students' low self-confidence in Mathematics, the behaviors that are associated with it, and possible interventions that could be taken to address this. Based on the findings from the interviews with five (5) mathematics teachers, factors that led to low confidence among students include previous poor academic performance, preconceived beliefs that mathematics is a difficult subject and traditional teaching methods that students emphasize behaviors on like memorization. Teachers shared that there is a behavior of being reluctance, meaning, the learners were afraid to participate in problem-solving activities, hesitation to seek clarification, and unexplained uneasiness during exams. Teachers also suggested interventions based on their practical knowledge such as the use of differentiated instruction, collaborative learning and positive feedback to help the students regain their confidence. Teachers pointed at peer tutoring and small group activities that helped the learners to come out of their shells and become more confident. The result showed that by creating an encouraging and patient learning atmosphere in the classroom, the fear of failure was reduced, and the students' confidence was enhanced. This study linked the theory with the practice and thus offered the stakeholders useful information and recommendations that may be implemented in the field. It stressed the importance of changes in the system for the approaches and environments for teaching mathematics especially in the development of confidence. The results also pointed out the importance inclusive measures to change the students' perception and results in mathematics, thus reducing the inequalities in academic and lifelong learning.

Keywords:- *Mathematics Self-Confidence, Student Behavior in Mathematics, Teachers' Perspectives, Root Causes of Low Confidence, Interventions in Mathematics Education.*

I. INTRODUCTION

It is human nature to mediate something that will affect the learning negatively. The achievement of the students in learning mathematics is measured according to their academic achievement in connection to the self-confidence a student possesses. Given that there is more weigh on the effects rather than the causes, still, it is very meaningful to identify where the problem of lack of self-confidence started. When a student is hesitant to try new things or challenging tasks, one can usually conclude that he or she lacks self-confidence.

Bandura (1999) considered self-confidence as one of the most influential motivators and regulators of behavior in people's everyday lives. Also, he stated that self-efficacy (self-confidence) is a major determinant of behavior only when people have sufficient incentives to act on their self-perception of confidence and when they possess the requisite skills (Bandura, 1977). One should do something to improve learning. As lack of self-confidence fosters, teachers as educators as well as those persons around the learner may do something to intervene the learners' learning difficulty. That is why, this study will try to dig deeper the possible forms of interventions to address the problem of lack of self-confidence.

II. TEACHERS' PERSPECTIVE ON STUDENTS' LACK OF SELF-CONFIDENCE

A. Root Causes of Lack of Self-Confidence

The study found that students often struggle with self-confidence in Mathematics due to past poor performance, the belief that Math is naturally difficult, and teaching methods that focus more on memorization than true understanding. This is similar to what Lee and Stankov (2018) discovered, showing that students past struggles can greatly affect how confident they feel in Math. Boaler (2016) also pointed out that when teaching focuses only on rules and procedures, it can discourage students and create a negative attitude toward Math. These challenges highlight the need for teaching methods that make Math more approachable and engaging for students.

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During the interview, most of the mathematics teachers revealed that traditional teaching approaches often don't meet the needs of all students, which lowers their confidence. Lazarides and Ittel (2016) emphasized that a supportive learning environment can make a big difference in improving students' confidence and engagement. Teachers also shared that when students repeatedly struggle with tests or memorization-heavy lessons, it increases their anxiety, which aligns with Phan et al.'s (2017) findings.

B. Behaviors Observed

Students who struggle with confidence in Mathematics often display behaviors that hinder their learning, such as avoiding participation in problem-solving activities, hesitating to ask questions, and experiencing heightened anxiety during tests. These behaviors often stem from a fear of making mistakes and a lack of support in class. Themes like these was revealed that these behaviors are linked to students' negative experiences with the subject and the absence of a supportive classroom culture. These findings align with the work of Lazarides and Ittel (2016), who noted that a positive and supportive classroom environment is crucial in improving students' confidence and engagement. To add, Bernardo (2019) emphasized that fostering a growth mindset among Filipino students can reduce their fear of failure and encourage active participation in Mathematics.

The teachers also stressed the importance of addressing these behaviors by creating an inclusive and emotionally safe classroom. Liu and Wang (2015) highlighted that students who feel secure in their learning environment are more likely to take risks, engage in problem-solving tasks, and view mistakes as opportunities for growth. This is supported by David and Andaya (2018), who found that Filipino students' Mathematics performance improves when teachers actively create a culture of encouragement and inclusivity in the classroom. These insights underscore the need for teachers to cultivate supportive learning environments that reduce anxiety, boost confidence, and engage students in the learning process.

C. Suggested Interventions

Teachers shared their interventions to boost students' confidence in Mathematics by tailoring activities to their learning needs, fostering collaboration through group work, and providing consistent positive feedback. Peer tutoring and small group tasks emerged as particularly effective in creating a supportive environment where students felt more comfortable to engage and enhance their skills. These approaches not only address learning gaps but also cultivate a classroom atmosphere that encourages motivation and fosters a sense of belonging. The findings highlight the critical importance of implementing these strategies in Mathematics instruction to help students build confidence and achieve both academic and personal success.

This affirms the study of Boaler (2016) which emphasizes the transformative effect of student-centered activities in Mathematics. Bernardo (2019) observed that peer-supported learning environments significantly improve Filipino students' confidence and performance in challenging subjects like Math. Teachers' insights and the thematic analysis of their responses reinforce the need for adaptive, collaborative, and positively reinforced teaching practices to empower students and create a lasting impact on their confidence and learning outcomes.

III. CONCLUSIONS

The study found that students' lack of self-confidence in Mathematics stems from factors like poor past performance, the belief that Math is inherently difficult, and teaching methods focused on memorization rather than understanding. This lack of confidence often leads to behaviors such as avoiding participation, hesitating to ask questions, and feeling anxious during tests, which further hinder learning. Teachers highlighted effective strategies to address these issues, including differentiated instruction, group activities, and positive feedback, with peer tutoring and small group tasks being particularly successful. These approaches not only help students improve their skills but also create a supportive classroom environment that boosts confidence and motivation, emphasizing the importance of adopting these methods to enhance students' academic success and personal growth.

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