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How Difficult is 1+1? A Phenomenological Study of High School Students Struggling in Mathematics

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ABSTRACTS

The study's purpose was to understand and elaborate the problems of those students who were having difficulty in mathematics, as well as to help them in boosting up their self-assurance when playing out the subject. This study sought to answer the following questions: (1) What are the problems that the students encounter in Mathematics? (2) Why are they having difficulty in Mathematics? (3) What are the possible ways for them to cope up with Mathematics? We used the qualitative study to support the analysis, particularly phenomenological research. The method used to gather data for the study was the interview with the use of guide questionnaires. A purposive sampling technique was used to gather participants in the study. The participants were four students of Sultan Kudarat State University (SKSU) – Laboratory High School. This research also employed a triangular method of interview. The participants had been through different struggles in mathematical subjects. We came up with themes as different perspective was shared. The participants felt bad for their performance with mathematics. However, they also recognized that self-reliance might be a better way to cope up in the course of mathematics. All of the participants displayed maturity and liberality in the said problems for all of their answers. This study can be a great instrument to help those students who were sunken beneath in having difficulties in Mathematics.

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1. INTRODUCTION

The basic knowledge of Mathematics at secondary level is the crucial factor that determined their' excellent performance or not at great (Hailikari, *et al.*, 2008; Bottge *et al.*, 2002). This is because this subject is very crucial for further applications, especially in industrial perspectives (Mohamad *et al.*, 2021; Suroto, S., & Nurdin, 2021) As indicated by Khat (2013), previous techniques might be conceptualized as versatile because it may bring about better learning and expanded comprehension. Moreover, according to Hilikari *et al* (2008), the strain to fit in for somebody entering secondary school is enormous. Mulwa (2015) also states that in general, most Filipinos will despise Math, notwithstanding asserting that it's not one of their preferred subjects in school. Lastly, the expression "self-adequacy" is utilized to depict as an incredibly motivating force to surpass difficulties (Stankov and Lee, 2017).

Many mathematics skills were involved in problem-solving (Surya and Putri, 2017; Amalia *et al.*, 2017). However, a large number of students have not acquired the basic skills they need in mathematics so that many students have difficulty solving mathematical problems (Tambychik and Meerah, 2010; Lee *et al.*, 2018). If mathematics learning is not equally effective for all students, then the students' mathematical abilities will worsen. Understand student difficulties in math skills is one way to help this group of students (Zhou *et al.*, 2020).

This study focused to further elaborate and identify the problems of those students who were having difficulty in terms of the subject, and to likewise help them in boosting up their self-assurance when playing out the Mathematics Course.

2. METHODS

The Qualitative Study, particularly Phenomenological Research, unveils the journey and experience of the Junior High School students of Sultan Kudarat State University- Laboratory High School. A Purposive Sampling technique was used by the researchers to gather the participants in the study. The researchers conducted one on one interview to consolidate depth information on each participant. This study employed the data gathering procedure as **Figure 1**.

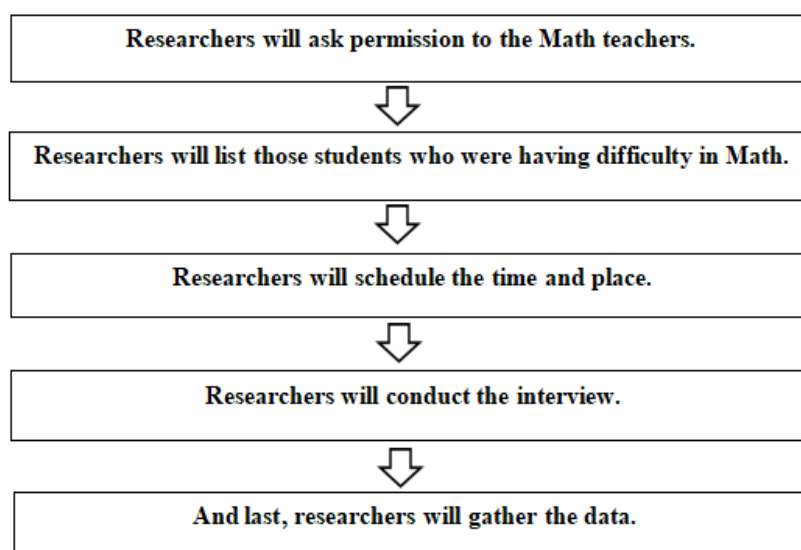


Figure 1. Showing data gathering procedure of the study.

3. RESULTS AND DISCUSSION

The research follows the process and format of Interpretative Phenomenological Analysis (IPA) to make sense with the Qualitative Data obtained from research participants. The themes analyzed in **Table 1**.

Table 1. Themes of Students having difficulties in Math

Themes	Participants' Responses
1. Lack of Focus	: "Mathematics is very hard, and I don't like math. With that reason I feel hopeless."
• Apathy	: "I am easily distracted because I can only focus on one thing."
• Obstruction	: "I am annoyed because I can't get it and my head hurts."
• Frustration	
2. Complexity of the Subject	: "I am a slow learner, and those number are very difficult to understand."
3. Social Influence	: "Many of my friends also struggles and I am happy that I am not the only one."
4. Self-Reliance	: "I will study hard it because if somebody's need to learn, that's me."

Students are commonly sent to school to attain education, develop their thinking abilities, and dream of a brighter future (Maryanti *et al.*, 2021). Eventually, other students are having struggles and difficulty in the subject of Mathematics. In this study, the life of four students shares their apathy and resentment with the particular subject.

Under the superordinate theme, Lack of Focus, an individual who struggles in Mathematics has a specific reason to gain a lack of focus. In their responses to the interview questions, three sub-themes emerged from the superordinate theme. The three identified sub-themes were the following: (1) Apathy, which talks about their absence of interest in the subject (2) Obstruction, which tackles the factors why those participants are having difficulty in Mathematics; and (3) Frustration, which could be the effects caused by the said research topic (Intriago Conforme and Melendez, 2020; Alrajeh *et al.*, 2020; Irvine 2020).

The others lack interest because of apathy; they are not having much interest in the subject. While others have an Obstruction, there is something that blocks them and makes it difficult for them to understand their topics. Others have Frustration; as Mathematics is not the only subject that pertains to focus with the participants were frustrate to sort out numbers, including variables, rumbled upon.

Under the superordinate theme, Complexity of the Subject; it's specified the effects of it for the respondent. Most of the respondent's answers emphasize their claims about struggling in the subject by transferring one lesson to another in a little amount of time since students are required to apply and integrate many mathematical concepts and skills during the decision-making and problem-solving processes. The delay in the transfer process causes a lack of mathematical skills in students (Tambychik and Meerah, 2010).

Going through superordinate theme, Social Influence; upholding socialization, and communication of the respondents to their friends and peers can be a great impact in learning

(Ahmad, 2021). The participants' friends understand their situation because they also felt the struggles in Mathematics. To improve the quality of learning, an increased interest in involving students as partners in teaching and learning must be applied (Stigmar, 2016). A peer tutor is anyone who has the same status as the person being mentored and acts as a complement and active partner like a teacher in the teaching and learning process (Dawson et al., 2014).

Lastly, the superordinate theme, Self-Reliance; the participants believe that they can cope by relying on themselves to understand their lesson thoroughly. Based on the struggles that the participants experienced, they gain inspiration to strive for better grades in Mathematics.

4. CONCLUSION

The researchers identified that there were various circumstances that had influence the learning process of some students in Mathematics. They had different perspectives on how they struggle on Mathematics. Some can't focus and others can't process the topic easily in their mind. Being distracted by the surrounding things don't help them either to concentrate on the subject. However, self-reliance might be a better way to learn and it might be the best way to learn more in performing out Mathematics.

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6. AUTHORS' NOTE

The authors declare that there is no conflict of interest regarding the publication of this article. Authors confirmed that the paper was free of plagiarism.

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