Unraveling the Lived Experiences: Mathematics Learning Challenges and Coping Strategies of Dyscalculia Students

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ABSTRACT

Purpose: The lived experiences of students with dyscalculia in the context of learning mathematics are explored in depth in this research work.

Design/Methodology/Approach: Students with dyscalculia, a distinct learning condition that affects numerical and mathematical abilities, have particular difficulties that have an impact on their academic performance and educational trajectory. Qualitative research techniques, such as interviews and observations, were used to get deeper insights into the subjective realities of dyscalculia kids. The study included a broad group of dyscalculia kids from various educational levels and used thematic analysis to gain a thorough grasp of their learning obstacles and coping mechanisms.

Findings: The results show how complicated dyscalculia students' problems can be, from feelings of anger, anxiety, and low self-esteem to issues with understanding mathematical language and concepts. The study also illustrates how resilient and adaptable dyscalculia students are in navigating their academic journey.

Implications/Originality/Value: The results of this study have consequences for legislators, parents, and educators, promoting a better knowledge of dyscalculia and how it affects math learning. By recognizing the lived experiences of dyscalculia students, educational institutions can develop more inclusive and supportive environments, tailored interventions, and teaching methodologies to enhance their mathematical learning outcomes.

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Introduction
Learning has been characterized in two primary ways: firstly, as alterations in conduct that arise from engagement with the environment, and secondly, as modifications within the organism resulting from experience. However, these definitions have their limitations. In this investigation, we present a more comprehensive definition of learning as ontogenetic adjustment, encompassing changes in the conduct of a living organism resulting from regularities in its environment. Learning has been a central focus of cognitive research ever since the inception of brain studies as an independent scientific field. It is an ingrained process in living organisms that results in enduring adjustments and unfolds organically through maturation (Andrist & Yoshimoto, 2015).

The acquisition of contemporary knowledge and skills marks the commencement of the educational expedition. Such an endeavor takes place within the confines of a classroom, where the teacher, the preeminent authority, imparts knowledge and showcases expertise, often through the astute implementation of direct instruction and modeling, to the students who are the novices in the said setting. The nature of learning is multifarious, contingent upon its objective and context, and encompasses a diverse range of processes, methods, and, without doubt, outcomes (Conklin, 2019). The act of storing information into the permanent storage of the mind is referred to as "encoding". The act of retrieving it thereafter is known as "retrieval". Commensurate with these variances in education and learning, and amidst the intricate web of societal relationships, a conglomeration of erudite propositions has progressed (Daley, 2020).

The field of exploration pertaining to learning has become remarkably complex, with a diverse array of foci, instigators, and proponents, institutions, and disciplinary measures. To facilitate societal advancements, innovative approaches to conveying concepts and fostering learning have emerged, such as 'lifelong learning', 'cognizant and incognizant studying', 'digital learning', 'operationalized learning', 'integrated learning', 'collaborative learning', 'self-directed learning', 'facilitated learning', and 'affirmation-based education' (Dempewolf, 2023).

Learning Disabilities
The purpose of education is to promote the advancement and development of the child, thereby aligning their intrinsic essence with the manifestation of their moral principles. Education serves as a tool to facilitate the realization of one's personal objectives. The National Policy on Education (1986) assumes a pivotal role in providing optimal resources for children afflicted by learning disabilities. In the contemporary era, learners represent the future of our nation. As the future pillars of Pakistan, it is imperative that each pillar be fortified to the same extent as its counterpart (Dymock & Nicholson, 2023).

Learning disabilities pose a significant challenge for educational institutions, their staff, and students alike. Such disabilities often go unnoticed and are met with indifference by experts/teachers, thus impeding children's ability to meet desired academic goals. The term learning disabilities encompasses a diverse array of disabilities that encompass several issues related to pragmatic knowledge. These issues manifest in the form of difficulties in listening, speaking, reading, writing, critical thinking, reasoning, and mathematical abilities (Gattullo iD et al., 2022).

These disabilities are not readily discernible as they are innate to the individual (Menon, 2016). According to (Havens, 2019) there exist incomplete evidences to propose reasons for the decline in the incidence of learning disabilities. It is suggested that further investigation is required in order to gain a clear understanding of learning disabilities. Reliable and valid evaluation tools are necessary to gauge effective and authentic outcomes. The United States' Department of Education reports that roughly 2.9
million learners in the U.S. suffer from learning disabilities and encounter various challenges while receiving special education services (Gattullo et al., 2022).

Three domains are commonly affected by learning disabilities, namely, reading, also known as "dyslexia", writing, also known as "dysgraphia", and mathematics, also known as "dyscalculia". Learning disabilities encompass a diverse range of disorders that are characterized by significant difficulties in acquiring and utilizing skills related to language, reading, writing, comprehension, reasoning, and numerical concepts. These disorders are intrinsic to the individual and are believed to be caused by dysfunction in the central nervous system. Despite the fact that learning disabilities may co-occur with other disabling conditions, they are distinct and require specialized interventions (Howe & Roop, 2023).

The manifestation of positive mutual characteristics among students with learning disabilities is a crucial indicator that aids in identifying them at an early stage and overcoming the challenges they encounter. A comprehensive list of the common characteristics of learning-disabled children is presented herein. It is noteworthy that neural disorders may underlie learning disabilities. In other words, a dissimilarity in the wiring of an individual's brain may give rise to a learning incapacity. Although children with learning disabilities exhibit exceptional cognitive abilities, they may experience difficulties in reading, writing, spelling, thinking, and organizing information, unless they are able to resolve these issues independently or are taught in traditional ways (Howe & Roop, 2023).

A learning disability is a condition that cannot be cured or stabilized, and may have a profound impact on an individual. However, with appropriate support and intervention, children with learning disabilities can thrive academically and pursue successful careers later in life. Parents can facilitate their children's academic success by fostering their strengths and abilities, acknowledging their weaknesses, familiarizing themselves with the educational system, collaborating with experts, and acquiring knowledge of effective strategies for addressing specific challenges (Johnson, 2017).

Learning disabilities, such as dyscalculia (a problem with mathematical ideas), dyslexia (a problem with reading), and dysgraphia (a problem with writing), are common among students in Pakistan. Unfortunately, teachers and mentors who are unaware of learning problems frequently ignore their difficulties. Recognizing the importance of their difficulties is essential since doing so will allow them to compete on an equal level with their peers. It's crucial to comprehend their experiences, ideas, and sentiments regarding their difficulties with mathematics in order to effectively address these issues. This will enable us to offer them the assistance they need to overcome these obstacles. The goal of this study is to examine how dyscalculia students learn mathematics in the classroom. The myriad difficulties young adolescents encounter, including bullying by classmates and teachers, served as the impetus for this study. Furthermore, there is a paucity of studies on Pakistani kids with dyscalculia's arithmetic comprehension. This study attempts to fill this knowledge vacuum by shedding light on the experiences of dyscalculia kids in math classes.

The utilization of the phenomenological method has facilitated the achievement of the goal of comprehending the phenomenon of lived experiences in mathematics learning among dyscalculia students. The dearth of phenomenological studies on mathematics learning has been identified by scholars. While previous research on mathematics learning has been perceptive, the variables that were the focus of such studies were predetermined by scientists. The researcher was unable to locate any studies that provided an avenue for primary school dyscalculia learners to articulate their concerns, reflections, and experiences pertaining to mathematics learning. Furthermore, no published studies were found that analyzed the factors that primary school learners had communicated to researchers as...
being of concern. In contrast, this study has enabled primary school dyscalculia learners to broaden the scientific community's comprehension of mathematics learning from an individualistic perspective (Kelley, 2022).

This study has presented an exposition of the experiences encountered by dyscalculia students in the process of learning mathematics, specifically highlighting the challenges faced by these learners as expressed in their own words. The description provided encapsulates the essence of each individual's unique journey in the realm of Math education. Furthermore, this research includes a comprehensive group description of the students' experiences amalgamated from recurring patterns and themes in their narratives. Hence, this study has successfully filled a research void. Compared to predetermined procedures and variables, phenomenological descriptions offer extensive and profound data, generating a more comprehensive and detailed depiction of this phenomenon. This, in turn, is a welcome addition for educators, therapists, and research psychologists interested in gaining a deeper understanding of this subject. Therefore, given the research question, a phenomenological methodology is an appropriate approach (Kempf, 2015).

In Pakistan's mainstream schools, a significant number of students experience learning disabilities, including dyscalculia (difficulties in mathematics), dyslexia (difficulties in reading), and dysgraphia (difficulties in writing). However, dyscalculia has not received much attention in Pakistan thus far. Therefore, it is imperative to investigate the experiences of students with dyscalculia in their learning of mathematics. To address this phenomenon, the following research questions have emerged:

1. What is the experience of dyscalculia students in the mathematics classroom?
2. What are the challenges that students ostensibly encounter in a mathematics classroom?

**Literature Review**

Mathematics serves as the foundational language and tool for learning, which enriches logical, rational, and critical thinking. It is imperative to emphasize the significance of teaching and learning mathematics, as it constitutes an essential component of educational objectives at the school level. In comparison to other fields of study at the elementary stage, mathematics education experiences the highest rate of academic underachievement. A notable proportion of students perceive mathematics to be an arduous and problematic subject, resulting in a lack of interest in learning. These students, classified as learning-disabled in mathematics, encounter such challenges (Perez & Gaffney, 1994).

In contemporary times, it is observed that students exhibiting traits of learning disabilities in mathematics can be classified under the rubric of dyscalculia. The aforementioned circumstance encompasses notable hurdles in regards to engaging in mathematical computations, encompassing, but not restricted to, numerical manipulations, arithmetic manipulations, numerical cognition, and apprehension of magnitudes. Present indications propose that a learning impediment is a cognitive ailment that may manifest in a child's brain as a result of genetic inheritance (Roop & Howe, 2022).

The cognitive abilities of individuals exhibiting traits of learning disabilities in mathematics (LDM) are typically within the average to above-average range, and may even demonstrate proficiency in other areas of mathematics. These individuals often encounter challenges in estimating time, distance, and size, and resort to manual counting methods for basic mathematical operations such as addition, subtraction, and multiplication. Such hindrances can negatively impact their daily lives, as well as their social and educational pursuits (Tolson, 2020).

Science-related problems are currently receiving greater attention from professionals, despite the fact that reading impairments have historically gotten more attention. It is widely understood that arithmetic
challenges for students with LD rank second only to reading problems as an academic challenge area. According to research, one in four students with learning disabilities (LD) require assistance because they struggle in science.

According to research, each student with mathematical difficulties is unique; not all children experience the same deficiency or impairment. Students with learning disabilities may encounter difficulties in both math calculations and math thinking. These students often face numerous challenges in numerical reasoning (Andrist & Yoshimoto, 2015).

The acquisition of mathematical skills commences in kindergarten and persists throughout a child's formal education, with arithmetic often serving as a primary prerequisite in many liberal arts institutions at the collegiate level. Typically, following reading, mathematics is the most frequently assessed subject in school systems. Arithmetic requires the identification of numbers and symbols, retention of facts, manipulation of numbers, and comprehension of abstract concepts such as place value and division. Some children, however, may experience difficulties with these tasks due to developmental math disorders, also referred to as dyscalculia, which denote a specific impairment in numerical reasoning or calculation abilities. Challenges with numbers or basic concepts are anticipated to manifest early on, as disabilities that emerge in later grades are more frequently associated with difficulties in reasoning. The American Institute of Extraordinary Education Professionals' Educator's Symptomatic Manual of Inabilities has cited various types of scientific disorders. What are the commonly observed mathematical disorders in dyscalculic children? (Conklin, 2019).

The phenomenon of Mathematics disability can impact individuals from diverse backgrounds, including both youngsters and educators. While previous research on Math learning has predominantly focused on students at the middle school level or beyond, scholars have recently discovered that the acquisition of Mathematics skills can commence as early as the first and second grades. Additionally, investigations have not established a significant correlation between low levels of mathematical proficiency and poor reading abilities in children. Thus, it becomes evident that the acquisition of mathematical knowledge is not merely a manifestation of general academic anxiety, but rather is specific to the field of Mathematics. These findings further lend credence to the notion that Math anxiety represents an anxiety disorder that arises in response to a particular stimulus and set of circumstances (Daley, 2020).

The revelation that the acquisition of mathematical skills can manifest as early as the primary school level ought to elicit concern among educators and parents alike. The National Mathematics Advisory Panel (2008) contends that a math-related learning disability may impede a student's capacity to attain a high school diploma. Given that math-related anxiety can commence as early as primary school, it is not an unreasonable conjecture that such anxiety may impede primary school students' aptitude to grasp the concepts of fractions and division, thus potentially laying the groundwork for later mathematical inadequacies in secondary school (Dempewolf, 2023).

The potential impact of the inability to perform middle and high school level Mathematics cannot be overstated, as it has been shown to have a negative association with college admissions, college graduation, and future earnings. The significance of cognitive skills, particularly Mathematical proficiency, has been on the rise since the 1970s and is projected to continue. Disparities in fundamental cognitive abilities such as Mathematical aptitude may, to some extent, account for the widening wage gaps. The researcher emphasized the need for intervention strategies to not only address emotional factors that influence Mathematical learning, but also to incorporate measures geared towards developing cognitive skills. This is consistent with the notion that academic anxiety arises
from a combination of students' perceived sense of self-efficacy, their ability to manage distracting thoughts, their capacity to cope with stressful situations, and their effective study habits (Dymock & Nicholson, 2023).

**Materials and Methods**

We employed Interpretative Phenomenological Analysis (IPA) in our investigation (Alase, 2017). The aim of this endeavor is to investigate the cognitive processes by which individuals comprehend their personal encounters, which has its genesis in the realm of psychology. (Brocki & Wearden, 2006a, 2006b). As (Finlay, 2012) the aforementioned statement posits that Phenomenology serves as the methodology utilized to articulate discrepancies and fluctuations (Yüksel & Yıldırım, 2015a, 2015b). It is important to note that the process of inflating ideas cannot be solely dependent on mere subjective interpretation, as it necessitates a logical and interrelated approach. Furthermore, this method is not limited to particular instances, as it has the potential to be broadly applicable (Cassidy et al., 2011).

The aim of this research was to investigate the educational encounter of students with dyscalculia in the context of mathematics classrooms. Therefore, the target population of this study comprised of students in upper primary classes. To achieve this objective, we utilized a purposive sampling technique (a non-probability sampling technique) to select four dyscalculic students from institutions located in Multan. This technique is considered to be highly effective when the researcher aims to study a particular cultural domain with knowledgeable experts. Furthermore, purposive sampling can be classified as critical, discriminating, choosy and subjective sampling. It is also categorized as a non-probability sampling technique, in which the researcher's thoughts are independent, and it enables the researcher to select the participants of the study from the population of interest to achieve their desired research objectives (Park et al., 2018). Primary school children, in this case grades 2 to 5. The main tool for this study involves includes checklist. Checklist is adapted by the researcher to obtain his goals of this study. These checklists consist of several statements having the option of responds in dichotomous way such as participants are supposed to record their responses in “yes” and “no”. These checklists are adapted by the researcher that was first developed by the book Learning Disabilities A to Z written by Smith and Strick and the National Center for Learning Disabilities (NCLD).

**Video Diaries**

Data was acquired through the utilization of interviews that were recorded via video diaries, with the explicit aim of ascertaining the students' encounter within the domain of mathematics education. The video diary stands as an efficacious technique for data collection, one which has been additionally employed for the purpose of examining the learning inclinations of primary school pupils, with a view towards gaining insights into their socio-cultural propensities and interests, as they transition towards secondary education in the context of their mathematics instruction (Aouizerate et al., 2004).

**Interview**

After conducting a thorough analysis of the video diaries, the researcher sought to achieve his desired objectives. To achieve this, the researcher conducted interviews with the participants of the video diaries. The aim of conducting these interviews was to address any existing lacunae in the researcher's understanding of the subject matter, despite having thoroughly scrutinized the data acquired from the video diaries. To this end, the researcher devised a semi-structured interview protocol, consisting of open-ended inquiries that delved into the participants' individual experiences, thoughts, and emotions. Moreover, the interview questions also pertained to personal traits, such as grooming, etiquette, and ocular contact.
Data Analysis
To analyze the data, researchers employ IPA. This method of data collecting makes it easier for researchers to learn about students' perspectives and experiences with the phenomena of understudies. For this reason, the researcher used the Smith et al. (2009) paradigm to examine in depth how dyscalculia students' experiences.

How do you learn mathematics in your classroom? Teaching style

This category purely describes the teacher’s way of teaching, defined by the learners that which method is adopt by their teachers to teach them.

S1: Respondent 1 claims that the teacher starts class by telling pupils to open their books before starting to complete arithmetic problems on the board. In order to guarantee that students understand each step of the problem-solving process, the teacher also elaborates on it. The respondent further claims that the teacher may occasionally write formulas to solve specific issues on the board before instructing the whole class to use those same formulas to solve problems of a similar sort. Although the teacher frequently advises pupils to ask for help when they are having problems, the teacher is nevertheless actively involved throughout lessons. In conclusion, this is a superb illustration of the transfer of knowledge.

S2: According to the account of Student 2, the educator initiates their discourse through a preliminary exercise and requests an elucidation of the notions that were introduced in the preceding session. Subsequently, the instructor proceeds to explicate the resolution to the predicament on the whiteboard. The pupils are then instructed to transcribe the solution. It is noteworthy that the pupils are not granted the opportunity to raise any inquiries. This is indicative of the fact that the classroom ambiance parallels the one delineated by Student 1, and that a more conventional pedagogical approach is being implemented.

S3: In a similar vein, the pedagogical methodology for mathematics education elucidated by Student 3 aligns with that of their peers. Specifically, the instructor commences the lesson by transcribing the content on the board, and subsequently expounds on the concepts presented. In the event that students encounter difficulties in comprehending the material, the instructor provides supplementary explanation. It may be deduced that the instructor adheres to a conventional and outdated teaching style.

S4: Student 4 found it intriguing when the students discussed the traditional pattern of teaching. The instructor instructed the students to open their books and examine the examples, and then transcribe the procedure of the example on the board. Subsequently, the students were asked to solve the problems utilizing the aforementioned procedure. This suggests that the teacher does not exert additional effort to capture the students' attention.

Reflection
Through the examination of the aforementioned perspectives, it becomes evident that the pedagogy employed in the instruction of mathematics to students is heavily steeped in tradition. Educators are relying on antiquated and conventional methods of teaching, such as the lecture approach, thereby perpetuating a one-way communication of knowledge.

How do you like math? Emotional behavior
This category describes the feeling and emotional behavior of the learners towards the mathematics learning.
S1: Student 1 shared that while he is learning mathematics, she is not feeling good. She comes with zero understating of mathematics because she faced a lot of problems in it. She also shared that she is unable to understand mathematics even after explaining it twice and blaming her teacher’s way of teaching. She claims that teachers are not teaching well and are not explaining properly, learners are not taking much interest in learning mathematics due to which they found mathematics not easy to understand.

S2: According to the response of participant 2 he described that he doesn’t like mathematics and also specifies some areas of difficulty due to which he isn’t interested in mathematics learning these areas are LCM and factorization.

Student 3 expressed his stance towards mathematics as being fond of the subject but failing to comprehend it. This implies that the student is experiencing a state of confusion regarding his academic performance and is unable to discern the root cause of his inability to excel. It can also be inferred that the student is struggling with self-evaluation.

Student 4 conveyed her sentiments regarding mathematics by expressing her dislike for the subject and being bored during mathematics classes. The student experiences a sense of exhaustion during her mathematics period that surpasses any other fatigue she may encounter throughout the day. This alludes to the fact that engaging with mathematics has a mentally taxing effect on the student.

**Reflection:** Upon examination of the aforementioned responses documented by the respondents, it was ascertained that the discipline of mathematics was perceived as unfavorable and tedious, thereby eliciting a general sentiment of aversion towards the subject.

Do you encounter challenges in comprehending mathematical concepts? If affirmatively so, what specific obstacles impede your progress? The impediments experienced by learners in mastering mathematics.

This category pertains to the challenges encountered by learners in the process of acquiring mathematical knowledge. These challenges represent the lived experiences of mathematics learners.

S1: The first student acknowledged facing difficulties in comprehending mathematical concepts.

S2: The second student also attested to the challenges he encountered in grasping mathematical concepts.

S3: Student 3 likewise affirmed that he experienced difficulties in comprehending and learning mathematics.

S4: The fourth student shared similar sentiments and admitted to encountering difficulties in learning mathematics.

**Reflection:** By extrapolating from the aforementioned responses of the participants, it can be inferred that all of the respondents are encountering difficulties with the acquisition of mathematical knowledge, as evidenced by their affirmative responses.

Do you encounter challenges in comprehending mathematical concepts? If affirmatively so, what specific obstacles impede your progress? Areas of difficulty

S1: Within this category, certain domains, types of inquiries, and ranges have been identified that learners perceive as challenging and causative of their lack of interest in mathematics. Specifically, Student 1 has delineated two areas of difficulty that impede their mathematical learning: fractions and word problems.

S2: Another participant, Student 2, has also conveyed their struggles with mathematics and pinpointed two areas that they believe are responsible for their aversion to the subject: LCM and factorization.

S3: Similarly, Student 3 has outlined two domains of difficulty that hinder their mathematical progress: division and word problems.
S4: Likewise, Student 4 has communicated two areas in which they encounter challenges with understanding mathematical concepts: division and HCF.

**Reflection:** Through rigorous analysis of the data that has been collected, it has been ascertained that there are specific areas that present a formidable challenge to learners in terms of comprehension. These areas have been meticulously identified as fractions, word problems, least common multiple, factorization, division, and highest common factor.

**How does a math teacher treat you? Classroom behavior**

S1: The present category elucidates the conduct of teachers towards learners of mathematics, specifically pertaining to their treatment of said learners.

S2: In accordance with the perspective of Student 2, his mathematics instructor displays a favorable disposition towards him, as the instructor takes great care to provide additional explanations when Student 2 encounters difficulty in comprehending mathematical concepts.

S3: Student 3 maintains that his mathematics teacher treats him with due consideration; however, when the teacher provides explanations, Student 3 struggles to grasp the material and requests further clarification. The teacher responds to this entreaty by castigating or physically disciplining Student 3.

S4: Correspondingly, Student 4 also attests that her mathematics teachers' approach towards learners who require additional explanations is less than satisfactory. Rather than offering further clarification, these teachers respond to such requests with chastisement, as corroborated by the accounts of Students 1 and 3. Consequently, learners are apprehensive about posing further questions to their instructors.

**Reflection:** We determined the students' answers to be of two different natures or favors by examining the aforementioned four responses. Two students believe that their teachers are not treating them properly because they scold and physically abuse their students; the other two participants believe that their teachers are treating them well because they repeatedly explain the issue.

**Discussion**

The present research aims to differentiate learners with dyscalculia from those without, and to investigate the classroom experiences of both groups with regard to their approach towards learning mathematics. The research methodology involves the use of checklists and video diaries as tools for data collection. Based on the researcher's extensive experience in the study of mathematics, mathematics behavior, and mathematics learning, the study concludes that mathematical anxiety is a learned and socialized response, deeply ingrained in a culture that discourages learners of mathematics from pursuing and excelling in the subject and related fields (Andrist & Yoshimoto, 2015).

The researcher posits that the socialization process for a considerable number of students commences early and undergoes a thorough screening before their enrollment in primary school. Through the practice of Epoche as delineated by the researcher, her preconceptions, biases, inclinations, and preconceived notions with respect to Math anxiety amongst learners of mathematics have been set aside (Aouizerate et al., 2004). In order to undertake this dissertation, the researcher approached the phenomenon of Lived Experiences in the context of mathematics learning among dyscalculia students. The researcher kept an open mind as she conducted interviews and analyzed the data. Participants were urged to speak up for themselves so that their opinions, ideas, perceptions, and worries about math anxiety might be heard. To enable a critical analysis of the voices of the past that teach us how things are or the voices of the present that shape our thinking, the study question, "What is the lived experience of mathematics learning of dyscalculia students?" was bracketed (Daley, 2020) did not affect data analysis or interview results. This helped to build a new consciousness and knowledge of mathematics learning that was unrestricted by previous expectations, experiences, parental and/or
scientific, cultural, political, etc.

To ensure a precise understanding of the participants' comments, the researcher accurately transcribed all video diaries and carefully evaluated them numerous times. Additionally, the researcher meticulously recorded noteworthy observations within the field notes during the creation of the video diaries. To ensure credibility, transcriptions and analyses were cross-checked with participants' thoughts and perspectives. Furthermore, the study's contextual framework encompassed age, gender, and grade level, resulting in the researcher selecting a sample of four dyscalculia learners. The researcher's investigation revealed that some teachers were not providing adequate support to the learners, while others were performing commendably. The majority of teachers were employing conventional and outdated teaching methodologies. Consequently, the learners expressed boredom and fatigue towards mathematics learning. Furthermore, almost all learners were encountering challenges in various areas of mathematics, including but not limited to LCM, HCF, factorization, fraction, division, and word problems (Gattullo et al., 2022).

The aforementioned issues and problems have several consequences, including subpar academic performance and negative interactions with teachers, leading to learners receiving poor marks and reprimands. In response, some educators have employed alternative teaching methods, such as the activity method and repetition, while others have implemented various strategies and techniques to motivate their pupils. However, the school management has yet to arrange additional classes to supplement their learning. Furthermore, peer behavior varies, and some students receive inspiration by comparing themselves to their peers and questioning their own abilities. Despite these challenges, learners have sought additional resources, such as external mathematics instruction, resulting in modest improvements in their academic results (Gattullo et al., 2022).

Conclusion

The present study aims to differentiate between dyscalculic learners and normal learners while also examining the classroom experiences of these learners in relation to their learning of mathematics. The research tool employed for this purpose includes checklists and video diaries. Drawing upon her contextual experiences in the field of Mathematics, the researcher has arrived at the conclusion that mathematical anxiety is a socialized response among learners in a culture that discourages them from pursuing and succeeding in Mathematics and Mathematics-related fields. The researcher contends further that before students join primary school, this socialization process frequently starts early and is strongly engrained in them.

In her investigation of math anxiety in math learners, the academic researcher has shown a dedication to the pursuit of impartiality. She has put aside any preconceived conceptions, biases, or prejudices she may have had in order to accomplish her goal. The researcher has attempted to approach her dissertation with a clear and open mind by drawing on the Epoche principles as described by Moustakas (1994). She has concentrated her emphasis on the real-life experiences of dyscalculia kids in the context of learning mathematics while conducting participant interviews and evaluating data. The researcher deliberately encouraged these students to speak up in order to guarantee that their opinions, views, experiences, perceptions, and concerns were adequately represented. She has been able to comprehend arithmetic anxiety in mathematics learners and how it affects the learning process more fully thanks to this method.

The inquiry posited as "What constitutes the Lived Experience of Mathematics learning of dyscalculia students?" was deliberately delimited to prevent the intervention of "voices of the past that tell us the way things are or voices of the present that direct our thinking" (Moustakas, 1994, p. 85) so as to avoid
any bias in the interviews or data analysis. By doing so, an innovative consciousness and comprehension of Mathematics learning that is unencumbered by prior expectations, personal or scientific experiences, cultural, political, parental influences, etc., was established.

The researcher conducted a thorough transcription of all video diaries and made multiple readings to ensure a precise comprehension of the participants' responses. In addition, the researcher kept meticulous field notes during the creation of the video diaries, recording any notable observations. To maintain the credibility of the study, transcriptions and analyses were cross-checked with the participants' thoughts and views. Additionally, the study's background included factors like age, gender, and grade level. The researcher chose four dyscalculic students as its sample and looked at how teachers interacted with them. It was found that some teachers were not dealing properly with the students and were still instructing mathematics in a conventional and outmoded manner. Consequently, learners viewed mathematics learning as boring and tiresome. Almost all learners faced issues in various areas of mathematics, including LCM, HCF, factorization, fraction, division, and world problems.

The aforementioned issues and problems have various consequences, including suboptimal academic performance and negative interactions with educators. Certain learners may receive unsatisfactory grades and face rebukes from their instructors, thereby hindering their ability to excel. In response, some teachers are utilizing alternative teaching approaches, such as activity-based instruction and repetition. Additionally, educators are employing diverse strategies and techniques to motivate learners, yet the school administration has not arranged for supplementary classes. While some peers exhibit exemplary behavior, others do not, and some learners derive motivation from comparing themselves to their classmates. Interestingly, most students are learning mathematics from sources other than their school teacher, resulting in minor yet positive changes in their mathematics performance.

**Recommendations**

Following are the researcher's recommendations and suggestions for contributing to the work and services provided to dyscalculia learners, in order to create a necessary and conducive learning environment:

1. It is imperative that future educators employ appropriate and distinct teaching styles for dyscalculia learners, so as to facilitate their understanding of mathematics and effect positive changes in their approach to learning mathematics. Future educators and organizations should develop innovative and appealing strategies and techniques to alter learners' attitudes towards mathematics and stimulate their interest in mathematics learning.

2. Future teachers and school administration should give students the required, desired, and necessary learning environment so that it would be easy for the students to understand the problems. This may also be useful in terms of removing the impact and consequence of these problems from learning mathematics.

3. In the forthcoming times, it is imperative for educators to exhibit exemplary conduct and comport themselves in a suitable manner. This conduct would serve as a catalyst for learner motivation, rather than the unfavorable approach of belittling, neglecting, or berating them.

4. It is the duty of teachers and administrators to inspire and support dyscalculic students in their quest for mathematical understanding. It is important to use both external and internal rewards to encourage and motivate people. It is the responsibility of school management to provide makeup classes for dyscalculia students. Self-evaluation is a crucial component for dyscalculia learners as it allows for a better understanding of their mathematical abilities and overall progress.
5. These pupils should additionally and individually get attention from their teachers. Instead of making fun of or mocking dyscalculic students, peers should support and encourage them in order to foster a pleasant learning environment.

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