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**The Role of Parental Support for the Students  
Suffering from Dyscalculia at Primary Level: A  
Study in District Peshawar Khyber  
Pakhtunekhwa Pakistan**

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**The Role of Parental Support for the Students Suffering from Dyscalculia at Primary Level: A Study in District Peshawar Khyber Pakhtunehwa Pakistan**

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**Abstract**

The study is about the role of parental support for the students with the problem or disability of dyscalculia. The study was qualitative analysis a common problem among the students at primary level schools in district Peshawar. The study was delimited to Government boys' primary schools in the area of Mandra khel Peshawar. The researcher used purposive sampling technique for this study and collect data through personal interview with each and every participant. The participants were primary school students having the problem of Dyscalculia, their parents and teachers concern. The researcher used thematic analysis to analyze the data.. The finding of the study showed that parental involvement is too much important for the learning journey of the children which can cover the problem of dyscalculia in the children up to great extent. Some valuable and precious recommendations were given as there should awareness programs in each and every Government primary school so that the parents would understand the importance of their involvement in children carrier. Government may also establish regular and convenient opportunities for parent-teacher meetings

**Key words:** Dyscalculia, parental involvement, valuable, precious, disability

**INTRODUCTION**

**BACKGROUND OF THE STUDY**

Education of the 21<sup>st</sup> century has been conceptualized in a multifaceted way, which includes new technologies, pedagogies, curriculum and modern ways for teaching, and it should be approachable to each and every individual across the borders. Education is the right of every individual specially those having learning difficulties.

All the students regardless of their class or social background enter the classroom for the first time with full enthusiasm and motivation in the expectation to succeed although in the end of the year they lose their confidence because they are not experiencing success. Lack of

success weakens the self-esteem of the student and diminishes the motivation (Westwood, P. 2004).

#### **PARENTAL ROLE**

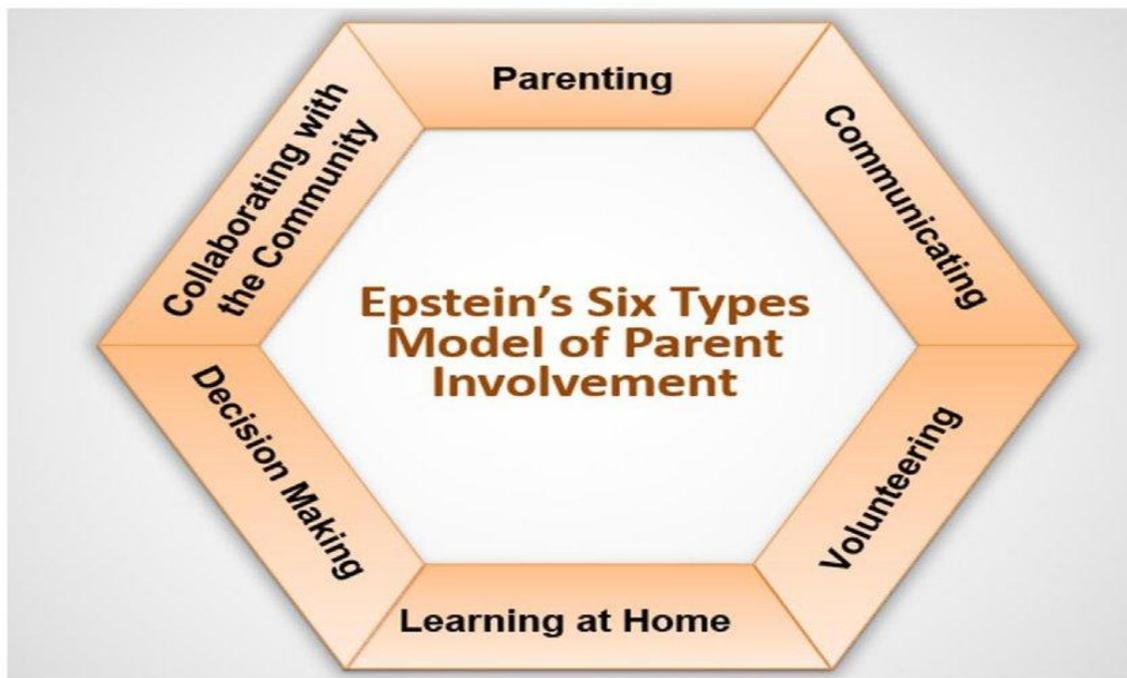
Parental involvement is defined as the extent to which a parent is involved with learning from their child in home, as well as in the school. Example helping the child with their homework and creating a strong communication with their teachers at school, having an eye on the progress and grades of their children. The environment of family is very much important in the academic success of student. Parental role is vital for the success of child. To assure the academic success of the student school should engage the parents with the academic activities.

Parental involvement is an important strategy for the advancement of education. Researches has shown that parental involvement is an important factor in enhancing the learning of the student because they have the best understanding of the needs of their children. The student's performance was always improved outside their school life and highlighted by their parents. It is recognized that parents must be involved in everyday life of their children. It has been watched that the parent those were involved in their child's learning not only improved their morale and attitude but also their academic achievements across all subject areas and better behavior among the society.(Wangdi, S. 2021)

#### **EPSTEIN'S MODEL OF PARENTAL INVOLVEMENT**

The term parental involvement is not a new term. Parental involvement is around since the schooling of a child starts. But not every parent is aware that how parental support or involvement helps in the success of a child. Parental environment has variety of techniques which leads to the success of the child. Generally, the term parental involvement refers to the relationship between parents and their children at home and school.

The Epstein's model of parental involvement serves the basis of the student and their parent role in their learning at school and home (Salac, L. M., & Florida, J. U. 2022).



### **LEARNING DIFFICULTIES**

Learning difficulty is an unsayable condition, happens in a child's average or above average intelligence, portray by a significant delay in one or more areas of learning (Selikowitz, M. 2012). Learning difficulty refers to the continuing problem in the given three areas: reading, writing and math. Diagnostic and statistical manual (DSM-5) explains the learning difficulty as an neurodevelopment disorder that holds back the process of learning or academic processes such as reading, writing and arithmetic problems (Penesetti, D. 2018).

### **DYSCALCULIA**

The term dyscalculia means to count badly. It is used to define the students those are having problems with numbers. If we compare dyscalculia with other learning difficulties it has given little attention and familiarity to the public. The individuals suffering from dyscalculia can not solve simple problems such as  $7+2=9$ . Individuals suffering from dyscalculia can be high achievers in fields other than those which involve numbers (kadosh&walsh 2007).

### **OBJECTIVES OF THE STUDY**

- To investigate the Impact of Parental Involvement on Academic Performance.
- To Identify Effective Parental Support Strategies for Students with Dyscalculia.
- To exploring the role of parents among the students suffering from dyscalculia at Primary Level in District Peshawar
- To propose some valuable recommendations for the problem of dyscalculia at primary level.

### **RESEARCH QUESTION OF THE STUDY**

1. What is the role of parents among the students suffering from dyscalculia at Primary Level in District Peshawar.

### **STATEMENT OF THE PROBLEM**

Dyscalculia, a common learning disability of mathematics, poses too many challenges for students in their academic carrier. Despite the increasing awareness about dyscalculia, there is a very limited understanding of the role played by the parents in supporting their children who struggle with this problem. This research aims to investigate the multifaceted role of parents in the lives of students with dyscalculia, examining their perceptions, involvement in academic activities, and the overall impact of their support on the educational experiences of their children. By addressing this gap in knowledge, the study seeks to provide insights that can inform effective strategies for enhancing parental support and, consequently, improving the academic outcomes of students affected by dyscalculia.

### **RATIONALE OF THE STUDY**

This study aims to investigate the role of parents in supporting students with dyscalculia, a learning difficulty in mathematics. While existing research focuses on classroom interventions, there is a gap in understanding how parental involvement influences the academic and emotional well-being of the students with this problem. By exploring this relationship, the study aims to uncover effective practices and challenges, providing insights for educators and policymakers. The goal is to empower parents to contribute actively to their child's development in the field of mathematical providing a supportive environment for students with dyscalculia.

### **SIGNIFICANCE OF THE STUDY**

The significance of this study lies in its potential to illuminate the complex and multifaceted role that parental involvement plays in addressing the challenges associated with dyscalculia among students. Dyscalculia, a specific learning disability characterized by difficulties in understanding numbers, performing arithmetic operations, and grasping mathematical concepts, poses significant barriers to academic achievement (Butterworth et al., 2011). This research seeks to explore how parents, as primary influencers in their children's educational journeys, can contribute to alleviating these challenges. By examining the interplay between parental engagement and student outcomes, the study aims to identify effective strategies that parents can adopt, as well as potential obstacles that may arise within the parent-student relationship (Desoete et al., 2013).

The insights generated from this research hold considerable value for a wide range of stakeholders, including educators, school administrators, and policymakers. For educational practitioners, the findings can serve as a foundation for designing targeted interventions that address the unique needs of students with dyscalculia. Such interventions may include personalized learning plans, the use of assistive technologies, or the integration of multisensory teaching methods that align with the child's learning style (Kaufmann et al., 2013). Furthermore, the study highlights the importance of fostering a collaborative environment where parents and

educators work in tandem to create a supportive framework for students struggling with mathematical concepts (Peters et al., 2020).

#### **METHODOLOGY**

##### **DESIGN OF THE STUDY**

The current study was descriptive in nature under focused on the qualitative survey based, interview was used for the collection of the data from the respondents of the study.

**POPULATION OF THE STUDY:** Population refers to the entire group of individuals that the researcher aimed to investigate (Berndt, 2020). Population of the study was the students of class 5 in GPS Mandra Khel district Peshawar.

**SAMPLING TECHNIQUE:** Sampling is the process of selecting a subset of elements from the population for detailed examination (Berndt, 2020). The researcher used purposive sampling technique in the study.

##### **PARTICIPANTS**

The participants for this study include one mathematics teacher of class 5, two students with learning difficulties (dyscalculia) from 5 grade. They opted to participate willingly.

While referring to the school's annual progress report, it was found that these two students have failed in mathematics, starting from class IV and their case was found unique and selected as participants.

##### **DATA COLLECTION TOOLS**

Data collection is the systematic approach to gather and measure information from variety of sources to get a complete and accurate picture of an area of interest and it should be planned to enable a person to answer relevant questions, evaluate outcomes and make predictions about future probabilities and trends (McLaughlin 2020).

##### **INTERVIEW**

The use of un-structured interviews was required since the study is planned as a case study with a qualitative approach. un-structured interviews are superbly suited for a few valuable tasks, particularly when more than a few of the open-ended questions require follow-up queries (Adams, 2015). Moreover, un-structured interviews also allow informants the freedom to express their views in their own terms (Cohen & Crabtree, 2006), the researcher have used this form of technique.

The participants were asked to participate in a one-on-one interview. The duration of the interview ranged from 8 to 15 minutes. Throughout the interview, mostly open-ended questions were utilized to encourage participants to speak freely and react honestly to inquiries. Interview notes were collected, as well as data analysis notes, to allow the researcher to keep track of significant points to refer to later in the interview.

**DATA ANALYSIS:** The researcher used thematic analysis to analyze the data.

**THEMATIC ANALYSIS:** The researcher utilized coding to evaluate the data obtained from the interview, field notes, and documents/ records for this qualitative study. Braun and Clarke's (2019) six phrases of manual thematic analysis for this study as given in Figure was applied.

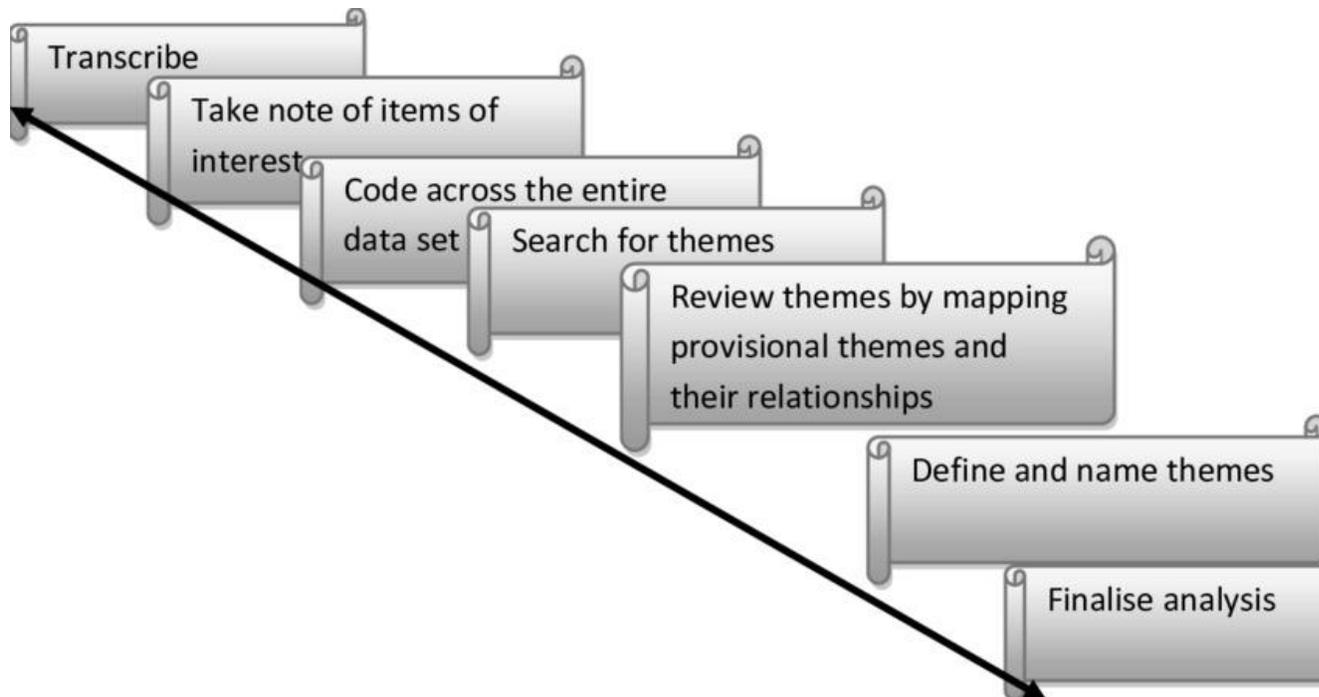


Figure: Braun and Clarke’s (2019) six phrases of manual thematic analysis

**PATTERN MATCHING:** Yin (2014) discusses pattern matching as the most desirable analytic strategy in case study research. Considering the importance, researchers have used pattern matching techniques to analyze data. The interview transcripts were examined many times to look for “recurring regularities” (Merriam, 2009). A comprehensive thematic analysis was carried out. The pattern was discovered by highlighting quotes and phrases from interviews that were essential to the research.

**TRUSTWORTHINESS:** Trustworthiness depends on rigorous methods applied, the credibility of the researcher and the philosophical assumptions in the value of this research. The data conclusions of this study are accurate since the researcher had one of his critical friends review the final product, and even the participants were required to doublecheck the quality of the transcribed notes.

**DATA ANALYSIS**

**DEMOGRAPHIC REPRESENTATION OF PARTICIPANTS**

<b>Respondents</b>	<b>Gender</b>	<b>Age</b>
Mt	M	30
P1	Female	34
P2	Male	35
St1	Male	14
St2	Male	15

For this qualitative study, the participants were asked different interview questions. The face-to-face interviews were conducted individually, taking 8 to 15 minutes. The researcher spent a long

time listening to the interviews. While analyzing the data, many themes and sub-themes emerged that support many aspects of the study. Which are discussed as follows:

## **RESULTS, DISCUSSION AND CONCLUSION**

### **THEME – 1 PARENTAL INVOLVEMENT IN CHILD’S LEARNING**

Parental engagement is any two-way interaction involving parents and other stakeholders. For instance,

*it’s not just the school reaching out to the parent but the parent reaching to the school as well, expressing concerns, asking about the child’s progress, or inquiring about what may be going on, and being open to feedback provided by school and vice versa.*

The analysis of the interview with the respondents indicated the importance of parental involvement in child learning. The teacher respondent had a broad spectrum of perspectives as to what parental involvement entailed.

*MT stated that “I think, and I strongly believe that parental involvement in child’s learning is very important”. Even though parents of the child with dyscalculia are not competent to support their child’s learning, MT suggested that parents have their hand to at least remind their child to do the homework assigned by the teachers.*

On this note, MT expressed that; Even though parents were not in a position to guide their child, but they can remind their children to do homework on time and they may encourage their children at least for few hours and also if they could let their child practice what they have learned in the daytime, especially the mathematics.

*Correspondingly, both parent and student participants agreed that parental involvement is one of the important aspects in a child’s learning. In this regard P1 asserted, “Parental role is important in child’s learning. If parents support more, the child learns more”.*

Similarly, one of the child participants expressed his satisfaction when he was supported by his mother in the academic home task as he said, “I am happy when parents help me to do my homework” (ST2).

### **THEME – 2 PARENTAL ROLE IN ACADEMIC LEARNING**

The interview on parental role in child’s learning revealed that the child receives minimal support from their parents in their learning.

For instance, MT pointed out that the parents are not at all cooperative in helping their children learn. This view of the MT is uttered when he expressed, “A parent is quite reluctant to help her son, when it comes to mathematics.

*I have personally requested his mother to motivate or to encourage him at home to learn, but she is not taking my recommendations positively.*

Similarly, it was also learnt that the parents were not able to provide academic support to their children as the change of curriculum deters their capability in supporting their child. The teacher was also conscious about the challenges of curriculum change, although, the parental involvement is seen minimal. On the other hand, it was perceived that the child was pampered by parents and did not comply to what parents say.

*Interestingly, the mother relied on supporting the child's academic learning with the elder sister when she was available.*

For instance, she said, "If his elder sister was with him, she used to help him for hours and hours but, in her absence, it is difficult".

### **THEME – 3 CHALLENGES TO SUPPORT CHILD'S LEARNING**

Parental involvement in a child's learning remains a challenge for many schools. The finding of this study reveals that parental involvement in supporting child's learning is minimal. There are several challenges and factors that have hindered parental involvement in children's learning.

#### **PARENTAL EDUCATIONAL BACKGROUND**

Parents affect children's learning behaviors and academic achievement in many ways. The parental educational background and qualification impacts the learning of the child. When the parents were asked to share the challenges faced in supporting the child's learning, the qualification and educational background of the parents were considered as deterrence in providing the required academic support to the child. Both the parents agreed on how it was difficult to help the child with academic work given their academic background for one parent as an illiterate and the other with a qualification till tenth grade.

*One of the parents (P2) confessed that she could not do much in supporting her child with academic work when she said, "The reason I am illiterate, I cannot help my child. Even when I see my son with book and pen in his hand, I assume that he is reading".*

#### **PARENT – TEACHER COLLABORATION**

Parent – teacher collaboration plays a key role in a child's learning. There should be consistent collaboration between teachers and parents to make students learn better in school. One of the participants agreed on the need for collaboration between school and parents for the betterment of the child's learning.

*"In order to uplift the academic performance of the child, I expect teacher, parents and school to work collaboratively as team" (P1).*

Similarly, another participant (MT) also shares the need for collaboration between parents and teachers. It was stated that "I have personally requested the child's mother to come and meet me talk about the child's academic, but she is not turning up to meet me. This statement indicates that there is a dire need for collaboration between parents, school, and teachers. This pitfall has affected the academic performance of the child.

#### **DISCUSSION**

Parental involvement in a student's education is like a group effort, where both parents and schools play an important role. It's not just about the school telling parents how their child is doing; it's also about parents reaching out, asking questions, and showing interest in their children's study. The interview with a teacher, MT, highlighted that even if parents may not be experts in the subject, like in the case of a child with dyscalculia, their involvement can still make a progress in the student development. MT suggested that parents can remind their children to complete homework, offer encouragement, and support practice, especially in difficult subjects like mathematics. Both parents and students agreed that when parents are

involved, it positively impacts a child's learning. One parent emphasized, "If parents support more, the child learns more." A student shared the joy of having parental support in homework, saying, "I am happy when parents help me to do my homework" (ST2). This emphasizes the importance of a collaborative effort of parents and schools in nurturing a child's educational career .

The discussion about parents helping kids with school shows that, in different cases, parents don't do much to help their child. MT, mentioned that a mom isn't very willing to help her son, especially with math. MT even tried asking the mom to encourage the child at home, but it didn't work out positively. The parents seem to struggle with giving academic support because the way things are taught has changed, and that makes it hard for them. On the other side, it seems like the child doesn't always listen to the parents and kind of gets special treatment. What's interesting is that the mom relies on the older sister to help the child with schoolwork, but it's not always easy because the sister might not be around. So, it looks like there are some challenges in getting parents involved in helping kids with their learning, and sometimes they need extra support too.

This study highlight attention to a big problem that many schools face: getting parents involved in their child's learning. The research shows that parents being actively engaged in supporting their child's education is not happening much. There are a bunch of challenges and reasons that make it hard for parents to be involved.

Another important thing highlighted in the study is how teamwork between parents and teachers is crucial. Collaboration between parents and teachers is key for a child's success. Some parents emphasized the need for teachers, parents, and the school to work together as a team. One parent said, "In order to make up the academic performance of the child, I expect teachers, parents, and school to work collectively as a team."

However, the study also found that this coordination is not happening easily. Some parents, even when asked by the teacher to meet and discuss the child's academics, do not turn up. This lack of collaboration is negatively affecting the child's learning and academic performance. It shows that for a child to succeed, there needs to be a strong relation among parents, teachers, and the school. The study points out some real challenges that need attention for the betterment of a child's development.

## **CONCLUSION**

The study concluded that many parents faced difficulties in getting involved in their children's development. The level of education of the parents is a big factor. Some parents feel they can't help much because they didn't go to school by themselves. Also, working together as a team between parents and teachers is super important for a child's education. Some parents think that if teachers, parents, and schoolwork together, it would really help the child do better in school. But unfortunately, the study showed that this teamwork can not happening easily. Some parents do not show up when teachers ask them to talk about the child's school stuff. This lack of teamwork is affecting how well the child is doing in school. So, to make things better, it's

important for everyone – parents, teachers, and the school – to find ways to work together and support the child's development.

### **RECOMMENDATIONS**

- Develop such programs that help parents understand the importance of their involvement in their child's life. These programs should also provide practices on how parents, regardless of their own educational background, can support their child's learning.
- Learning resources should be easily understandable that parents can use to assist their children with homework. These resources should be designed to accommodate parents with every educational levels.
- Organize such workshops or community events that focus on building collaboration among parents, teachers, and the school. These events will provide a platform for open communication and sharing of thoughts to support a child's academic performance.
- Establish regular and convenient opportunities for parent-teacher meetings.
- Encourage teachers to actively communicate with parents about their child's progress, strengths, and their week areas.
- Introduce the use of technology to make communication gaps between parents and teachers.
- Utilize digital platforms for sharing updates, academic resources, and facilitating virtual meetings, making it easier for parents to participate.
- Recognize the challenges faced by parents with limited educational backgrounds.
- Offer tailored support programs, such as adult education classes, to enhance their ability to assist their children in their learning.
- Further studies may be taken the problem of Dyscalculia at middle, high and higher secondary level.
- Studies may also be taken the problem in other geographical context.

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