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Navigating Challenges in Gifted Education: A Teacher's Perspective on Overcoming Barriers

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Gifted education is of utmost importance in the development and growth of intellectually advanced students; however, it often encounters various obstacles that hinder its effectiveness. This research delves into the perspectives of teachers regarding the overcoming of these barriers to providing effective gifted education. Employing qualitative research methods, a combination of interviews and surveys is conducted to gather valuable insights from a diverse group of teachers. The findings shed light on several challenges faced by teachers, including limited resources, inadequate training, and insufficient support from stakeholders. To address these challenges, teachers put forth potential solutions that could lead to the improvement of gifted education. These solutions encompass enhanced professional development opportunities for teachers, increased funding to allocate resources effectively, and the promotion of collaboration among all stakeholders involved. By effectively addressing these barriers, a more inclusive and nurturing environment can be fostered for gifted students. The study underlines the importance of integrating modules on gifted education into teacher education programs. By incorporating these modules, future educators can be equipped with the knowledge and skills necessary to effectively support and educate gifted students. Consequently, the implementation of the GATE policy to promote good practice plays a key role in gifted education. Ultimately, this research contributes to a deeper understanding of the challenges faced in gifted education and provides valuable insights that can inform policies and practices aimed at supporting the education of gifted students.

Keywords: barriers to gifted, gifted learners, teachers' perspectives, teachers' development.

Introduction

Teachers' education, training, and support should prioritize the development of skills necessary for understanding gifted education. Limited training in working with gifted students in traditional classroom settings poses a challenge for educators (Kettler, Oveross & Bishop, 2017). Teachers' perceptions and knowledge significantly impact student learning in gifted education (Clark, 2008). These perceptions influence classroom interactions, teaching methods, and learning outcomes (Troxclair, 2013). External factors, such as a country's historical, cultural, and political context, can shape perceptions and policy decisions in gifted education (Taylor & Kokot, 2000). In South Africa, there is limited knowledge about efforts to maximize the potential of gifted students, increasing the risk of underachievement (Al-Oweidi, 2019).

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Empirical studies on teachers' perceived barriers to gifted education are valuable for improving gifted learner programs. Professional development is crucial for teachers to effectively recognize and serve gifted students (Khalil & Accariya, 2016; Rowley, 2012; Sayi, 2018). Understanding teacher perceptions is essential for identifying necessary actions to enhance gifted education.

Barriers to Gifted Education

Lack of proper training for education professionals is a significant barrier to the creativity, identification, and inclusion of gifted students (Piske, Stoltz, Vestena, Freitas, Valentim, de Oliveira, Barby, & Machado, 2016). Teachers who have a better understanding of the needs of gifted children can develop effective teaching strategies that stimulate their creativity and cultivate their curiosity and desire to learn (Piske, 2015). Unfortunately, the creative potential of exceptional students often receives insufficient attention in schools, and teachers are frequently unprepared to meet their needs (Piske, 2016). Mere enough, notifying gifted children is not enough; schools must also have inclusive measures in place to support these students and provide teaching that encourages their imagination and creativity.

Barriers to the Creativity of Gifted Student

Creativity in the teaching and learning process is often stifled by pedagogical strategies used in many institutions (Piske, Stoltz, Machado, 2014). Gifted students, who are known for their exceptional creativity, require educational approaches that cater to their unique needs (Alencar, 2001, 2007; Peterson, 2003; Renzulli, 2004; Pérez, 2004; Piske, 2011, 2013; Piske & Stoltz, 2013; Prieto, Soto, & Fernandez, 2013). Several barriers hinder the development of creativity in gifted individuals, including repetitive teaching, uniformity of knowledge, unprepared teachers, traditional teaching and learning processes, reductionist educational contexts, and a lack of creativity and innovation in classes (Alencar & Fleith, 2001; Pérez, 2004, 2009; Piske, 2013a, 2013b, 2014a, 2014b, 2016; Piske, Stoltz, & Machado, 2014a, 2014b; Machado, 2013). To maximize their creative potential, the use of educational techniques is crucial, such as promoting autonomy, openness to variety, and idea formation over conformity and uniformity (Bahia & Trindade, 2013). Creating a climate that encourages originality, innovation, and the production of unusual ideas is essential for nurturing creativity in the classroom (Bahia & Trindade, 2013).

Barriers to Identification of Gifted Student

Barriers to the identification of gifted children in schools stem from various factors, including the traditional view of education, lack of respect for differences, insufficient challenges, difficulty in recognizing high abilities, limited awareness of enrichment, and students' special needs (Piske, Stoltz, et al., 2016; Alencar, 2009, 2014; Virgolim, 2007; Pérez, 2004). Schools must be prepared to understand students' abilities, interests, and developmental dimensions, providing opportunities for them

to construct knowledge at their own pace (Virgolim, 2007). Recognizing the unique needs of gifted children and overcoming barriers requires reflecting on knowledge, embracing diversity, promoting creativity, and acknowledging students' high abilities (Piske, Stoltz, et al., 2016).

Barriers to the Inclusion of Gifted Student

Efforts towards inclusive education often fall short of fully respecting and addressing the rights of children with special needs, including gifted children (Melo and Almeida, 2007; Bahia and Trindade, 2013, 2014; Bahia, 2016; Piske, 2015, 2016). To support these children, society must mobilize and take action. Identifying and diagnosing the needs of gifted students is the first step toward providing them with specialized services. Developing inclusive schools should be a prominent government policy, requiring adequate resources and political commitment at all levels (United Nations Educational, Scientific and Cultural Organization [UNESCO], Salamanca Statement, 1994: 41). However, there is still a significant gap in achieving full inclusion for gifted children in South Africa's school programs at all levels.

Teachers' Viewpoints about Gifted Students

Empirical studies from multiple countries reveal conflicting views among teachers regarding giftedness (Matheis et al., 2017). Empirical studies consistently validate the correlation between cognitive attributes and giftedness. These attributes include heightened processing speed, adept problem representation, flexible strategy selection, a broad knowledge base, and more (Aubry et al., 2021; Rodríguez Naveiras et al., 2019), while also displaying leadership qualities and a positive impact on the classroom. However, there is a pessimistic perception of giftedness linked to poor social, emotional, or behavioral competencies (Baudson & Preckel, 2013; Preckel et al., 2015). Some studies suggest higher intellect but lower emotional stability, agreeableness, and prosocial behavior among gifted students (Baudson & Preckel, 2013; Preckel et al., 2015), which can result in boredom, disinterest, and related challenges (Ozcan & Kotek, 2015; Lassig, 2009).

The disharmony hypothesis proposes a link between high cognitive ability and negative non-cognitive qualities, potentially explaining teachers' negative perceptions (Matheis et al., 2017). However, research indicates no association between giftedness and psychological disorders, nor discernible differences in social and emotional skills compared to average-ability students. Teachers' perceptions are not solely influenced by professional experience, but training in gifted education tends to foster positive attitudes (Lassig, 2009; Pedersen & Kronborg, 2014; Plunkett & Kronborg, 2016). Prioritizing ongoing professional development is crucial to reshaping perceptions and creating inclusive environments for gifted education (Schleicher, 2016).

Gifted and Talented Education (GATE) Policy for Schools Based

The government policy is always based on the equalization of opportunity in every corner of society (Das, 2022). Policies and practices related to capacity development within a system can play a key role in promoting diversity and inclusion in education systems (Organisation for Economic Co-operation and Development [OECD], 2021). Recent policy initiatives emphasise the importance of nurturing opportunities for creativity and curiosity to support young people to thrive in rapidly changing societies (OECD, 2021; UNESCO, 2022). GATE policy promotes good practice in the identification, teaching, learning, and management of students who are deemed gifted and talented (OECD, 2021). Numerous authors stress the absence of consistent national and international policy studies on gifted education (OECD, 2021). Ninkov, I. (2020) suggests enhancing education policies for inclusive learning environments for gifted children. These policies emphasise fostering individuality and diversity among the gifted, highlighting the importance of educated children as a nation's greatest asset. Unfortunately, in sub-Saharan Africa, which is still in the early stages of practicing inclusive education, knowledge about GATE is limited because preservice teacher training programs have yet to prioritize this subject area (Opoku et al., 2023). This can be the case with the GATE policy for schools based in South Africa, embracing inclusive education. This GATE policy has a substantial barrier to the creativity, identification, and inclusion of gifted students.

Research Questions

The study sought to answer the following questions:

How do mathematics teachers perceive barriers to implementing gifted education?
How can we overcome barriers to enhance gifted education provision in mathematics?

Objectives of the Study

This study has two objectives:

To explore the mathematics teachers' perceived barriers to gifted education
To understand what can be done to deal with the barriers to gifted education

Methods

Research Design

This qualitative study aimed to understand mathematics teachers' perceptions of barriers to gifted education. One hundred and sixteen teachers participated in focus group discussions, providing valuable insights. The discussions allowed for collaborative exploration and in-depth examination of the identified barriers. By adopting a qualitative approach, the study captured the complexities and nuances of

teachers' experiences and viewpoints. The findings offer valuable insights to inform future practices and interventions in the field of gifted education.

Research Instrument

This study employed an open-ended questionnaire to explore perceived barriers to gifted education in South Africa. The questionnaire had six sections covering various aspects of gifted education. By utilizing this approach, the researchers aimed to gather detailed responses and insights from teachers. The study specifically focused on identifying barriers to gifted education and aimed to inform policies and interventions to address these challenges. The goal was to strengthen the field of gifted education and provide better support for gifted learners.

Participants

Participants in this study were selected from the AMESA 2017 conference, representing math educators in South Africa. The sample includes 116 mathematics teachers. The diverse sample ensured reliable data. The study employed voluntary participation and member checks to validate the findings, enhancing the credibility of the research.

Results and Data Analysis

The teachers reflected on their present reality in school to give the researchers more insight into their perceptions (Ismail & Jarrah, 2019). The teachers' responses were coded into three categories: barriers to creativity, barriers to identification, and barriers to inclusion, using a predefined rubric. Each category was then further divided into subcategories based on the analysis of the teachers' questionnaires.

Mathematics Teachers' Perceived Barriers to Gifted Education

Regarding the first research aim, respondents described barriers to creativity, identification, and inclusion of gifted children. Two main barriers, namely creativity, and identification, were discussed in detail, indicating that mathematics teachers shared more about their experiences with these specific barriers. However, the discussion of barriers to the inclusion of gifted students was limited, with only a few teachers providing superficial answers, demonstrating a narrow perspective.

The Barriers to Creativity

Barriers to the creativity of gifted students were frequently discussed and categorized into six subcategories: repetitive teaching, uniformity of knowledge, unprepared teachers, traditional teaching methods, limited educational context, and lack of creativity during classes. However, none of the mathematics teachers mentioned all six subcategories.

Repetitive Teaching

Participants in the study identified repetitive teaching as a significant barrier that can impede the holistic development of gifted students' talents. This finding, supported by the National Survey on Education and Abilities of the Intellectually Gifted (National Special Educational Advocacy Institute [NSEAI], 2008), emphasizes the negative impact of repetitive teaching practices on gifted students. These barriers restrict the exploration of their abilities and limit opportunities for creative and intellectually stimulating tasks. To fully unlock the potential of gifted students, it is crucial to address and overcome these barriers associated with repetitive teaching methods.

Participant (0008) explained:

> "They are not challenged by the percentage of routine questions asked in the exam papers".

Another participant (0001) wrote:

> "Repetition and drill have become popular in the classroom. Teachers need only to encourage children to solve questions they may have".

These findings underscore the significance of recognizing and addressing the barriers related to repetitive teaching. To overcome these obstacles, it is essential to promote instructional approaches that foster critical thinking and creativity. By providing opportunities for personalized learning and challenging tasks, educators can tap into the potential of gifted students and enrich the educational experience for all. Creating an inclusive and stimulating learning environment plays a vital role in nurturing the unique talents of gifted students and supporting their holistic development.

Uniformity of Knowledge

"Uniformity of knowledge" refers to an education system that treats all students the same, disregarding their differences. This approach can hinder the unique needs of gifted students. To support their development, schools should move away from uniformity and provide tailored instruction and programs that accommodate their specific needs.

Participant (0040) described:

> "Teaching equally with slow learners".

and participant (0037) added:

> "Teachers must try to make sure that everyone has the same knowledge".

In conclusion, the discussion highlights the importance of addressing the limitations of a uniform education system that disregards the individual differences

of students, particularly in the context of gifted students. Participant (0040) expressed concerns about teaching equally to slow learners, while Participant (0037) emphasized the need for everyone to have the same knowledge. However, to better support the development of gifted students, schools should prioritise tailored instruction and programs that cater to their specific needs. Moving away from uniformity and embracing personalised approaches can ensure that gifted students receive the appropriate level of challenge and opportunities for growth, fostering an inclusive educational environment that nurtures their unique talents and abilities.

Teachers who are not prepared to make a class that incites curiosity and interest in learning of their gifted students

Teachers who are not adequately prepared to create a stimulating and intellectually engaging learning environment for gifted students may hinder their curiosity and interest in learning. Teachers need to receive training and support to effectively cater to the unique needs of gifted students.

Participant (0045) depicted:

> "Gifted students may be sorely neglected unless all teachers are aware of their needs and have skills to plan for them effectively".

One more participant (0034) portrayed:

> "Same lesson preparations for all learners".

The discussion underscores the critical role of teacher preparation in fostering a stimulating and intellectually engaging learning environment for gifted students. Insufficient teacher training and awareness of the unique needs of gifted students can hinder their curiosity and interest in learning. Participant (0045) highlights the potential neglect of gifted students unless teachers are equipped with the necessary knowledge and skills to effectively plan for their education. Additionally, the participant (0034) points out the concern of using the same lesson preparations for all learners, which may overlook the specific requirements of gifted students. To support the development and growth of gifted students, teachers must receive adequate training, support, and resources that enable them to create tailored instructional approaches that cater to the unique needs and abilities of gifted learners. By doing so, teachers can create a learning environment that nurtures and challenges gifted students, promoting their intellectual engagement, and maximizing their educational potential.

The Traditional Process of Teaching and Learning

The traditional teaching approaches are generally teacher-directed and where students are taught in a manner that is conducive to sitting and listening (Tukaram & Machisella, 2018).

One more participant (0036) unveiled:

> "They are bored since they usually sit and just listen to the teachers talking for some time".

Participant (0019) described:

> "Schools where gifted students are not assessed accordingly. They are mixed their papers are not special and it will look like an easy paper not challenging".

Traditional teaching approaches that prioritize passive listening can lead to boredom among gifted students (Participant 0036). Moreover, inadequate assessment practices in schools may fail to recognize the unique abilities of gifted students (Participant 0019). To address these issues, there is a need for student-centered teaching methods that actively engage gifted students and appropriate assessments that challenge and recognize their talents. By creating dynamic and stimulating learning environments, schools can better support the intellectual growth and development of gifted students.

Reductionist Way of Understanding the Educational Context

A reductionist way of understanding the educational context can also refer to the omission of important co-determinants of a multi-causal situation (Sayer, 2010:34), or the choice of an inappropriate perspective or conceptual framework. Participant (0030) illustrated:

> "Gifted students always cause disturbances for normal learners".

Another participant (0033) revealed:

> "Discipline because students who are gifted do not listen to their educators simply because most think they know better".

This section discussion highlights the potential limitations of a reductionist approach in understanding the educational context, which may overlook important co-determinants and perspectives. Participant (0030) suggests that gifted students can disrupt the learning environment for other students, while Participant (0033) emphasizes the challenge of discipline when gifted students exhibit independent thinking. These observations underscore the need for a more comprehensive and inclusive perspective that considers the diverse factors and dynamics at play in the educational setting.

By acknowledging the complex nature of education and adopting appropriate frameworks, educators can better address the unique needs and characteristics of gifted students. It is crucial to create a supportive and inclusive learning environment that fosters understanding, discipline, and cooperation among all students. By doing so, the educational experience can be enriched for both gifted students and their peers, promoting positive interactions and optimal learning outcomes for all.

Lack of Creativity and Innovation during Classes

Insufficient creativity and innovation during classes can limit the engagement and intellectual growth of gifted students.

Participant (0015) showed:

> "The unavailability of resources at schools impacts negatively on learners. Students usually learn best when they touch and use some equipment".

Another participant (0033) showed:

> "Lack of resources to equip the learner to put his or her abilities or strength to his or her full potential. Example computer relevant study material".

The study identified barriers to the creativity of gifted students, including repetitive teaching, uniformity of knowledge, unprepared teachers, traditional teaching methods, limited educational context, and lack of creativity during classes. Participants emphasized the need for more engaging and challenging learning experiences, differentiation in teaching, and teacher training to address these barriers and support the development of gifted students' creativity.

The Barriers to the Identification of Gifted Students

The barriers to identifying gifted students were discussed concerning several subcategories. These subcategories included the traditional view of education, lack of challenges in the school environment, difficulties in recognizing high abilities, students with special needs, stereotypical expectations, delays in development, incomplete information, and unfamiliarity with enrichment methods.

The Traditional View of Education Centered on the Transmission of Information and not on Reflection on Knowledge. The traditional approach to education focuses primarily on the transmission of information rather than promoting critical thinking and reflection. It suggests that there is a need to shift the educational paradigm towards fostering a deeper understanding and encouraging students to engage in meaningful reflection and analysis of knowledge.

Participant (0031) showed:

> "The mixture of students in one class. These combinations of students are a barrier since a teacher will focus on weak students and neglect the smart ones".

Another participant (0037) revealed:

> "Too much emphasis on meeting minimum basic standard".

The traditional approach to education prioritizes information transmission over critical thinking and reflection. This highlights the need to shift the educational paradigm towards fostering a deeper understanding and encouraging students to engage in meaningful analysis and reflection of knowledge.

However, certain barriers hinder this transition. One such barrier is the mixture of students in a single class, which can lead to teachers focusing primarily on weaker students, neglecting the needs of gifted students. Additionally, there is an excessive emphasis on meeting minimum basic standards, which may limit opportunities for intellectual growth and exploration. To overcome these challenges, it is crucial to promote differentiated instruction that addresses the unique needs of all students, including gifted learners. Encouraging critical thinking, and reflection, and providing opportunities for intellectual challenge will help create a more inclusive and enriching learning environment. By shifting the focus from mere information transmission to fostering a deeper understanding, education can better prepare students for lifelong learning and success.

Disrespect for Differences and Uniformity of Knowledge

"Disrespect of differences and uniformity of knowledge" refers to disregarding students' unique qualities and promoting a standardized approach to education. This hinders the development of gifted students and limits their individualized learning experiences. Embracing diversity and personalized education is crucial to nurturing the talents and potential of gifted students.
Participant (0037) uncovered:

> "Teachers must try to make sure that everyone has the same knowledge".

Another participant (0033) suggested:

> "Lack of services mandates in many schools to support services for gifted learners".

Based on the information provided, it can be concluded that the issue of "disrespect of differences and uniformity of knowledge" in education refers to disregarding students' unique qualities and promoting a standardized approach to education. This approach hinders the development of gifted students and limits their individualized learning experiences. The statement made by Participant 0037 about teachers trying to ensure everyone has the same knowledge indicates a focus on uniformity rather than recognizing and nurturing individual differences. Additionally, participant 0033 pointed out the lack of support services for gifted learners in many schools. This further reinforces the notion that the educational system fails to address the needs of gifted students, as they often require specialized services and tailored approaches to education. In conclusion, embracing diversity and personalized education is crucial to effectively nurture the talents and potential of gifted students. It is important to recognize and respect their unique qualities, provide appropriate support services, and avoid a one-size-fits-all approach to education. By doing so, we can create an inclusive and enriching learning environment that enables gifted students to thrive.

Lack of Sufficient Challenges in the School Environment

Insufficient challenges in the school environment hinder the intellectual growth of gifted students by depriving them of stimulating and engaging learning opportunities that match their abilities and interests.

Participant (0040) showed:

> "Sometimes the work given to them does not benefit them if it is of average level".

Another participant (0032) revealed:

> "Not given enough activities. Keeping them in a corner and concentrating on others".

The lack of challenging opportunities in the school environment hinders the intellectual growth of gifted students. Participant (0040) and Participant (0032) both highlight this issue, emphasizing that the average-level work assigned to them does not benefit them and leaves them without stimulating activities. By neglecting to provide appropriate challenges that match their abilities and interests, these students are unable to reach their full potential and excel academically. Educational institutions must recognize and address the unique needs of gifted students, providing them with stimulating and engaging learning opportunities to foster their intellectual growth. This way, we can cultivate a generation of capable individuals who can make meaningful contributions to society.

The Difficulty of Recognition among Educators about the High Abilities of their Students

Teachers often struggle to recognize and acknowledge the exceptional abilities of their students, which can hinder the appropriate support and opportunities needed for gifted students to thrive.

Participant (00) showed:

> "Gifted learners may be sorely neglected unless all teachers are aware of their needs and have skills to plan for them effectively".

Another participant (0033) designated:

> "Evaluating their ability among the same group".

The failure of teachers to recognize and acknowledge the exceptional abilities of their students poses a significant obstacle to providing the necessary support and opportunities for gifted students to flourish. Participant (00) emphasizes the importance of teachers being aware of the unique needs of gifted learners and possessing the skills to effectively plan for their educational requirements. Additionally, Participant (0033) points out the importance of evaluating the abilities of gifted students within an appropriate context, rather than comparing them to their peers with average abilities.

By addressing these challenges and enhancing teacher awareness and competency, we can better cater to the needs of gifted students, ensuring they receive the appropriate support and opportunities to fully develop their exceptional talents.

Incomplete Information about Students' Abilities

Lack of complete information about students' abilities refers to educators not having a comprehensive understanding of students' full range of capabilities. This can lead to underestimating or overlooking their talents and potential, including gifted students. Gathering accurate information through assessments and observations is essential to better understand students' abilities and provide appropriate support.

Participant (0047) showed:

"Evaluating their ability among the same group".

Another participant (0033) was exposed:

"Since teachers are not trained at the college level to deal with gifted students, gifted up being ignored".

Participants did not mention specific challenges faced by gifted students with special needs or topics such as stereotypical expectations, delays in development, incomplete information about abilities, and educators' unfamiliarity with enrichment strategies. These areas were not discussed during the study.

The Barriers to Inclusion

Barriers to the inclusion of gifted students were discussed in two categories: obstacles to effective learning and societal/environmental barriers. These categories encompass internal challenges, such as insufficient curriculum challenges, and external factors, such as a lack of awareness among teachers. Addressing these barriers requires tailored challenges, teacher training, and creating an inclusive educational environment. By overcoming these barriers, we can empower gifted students to reach their full potential and contribute meaningfully to society.

Anything that stands in the way of a child being able to learn effectively.

"Anything that stands in the way of a child being able to learn effectively" refers to any factors or circumstances that hinder or impede a child's ability to engage in successful and productive learning experiences.

Participant (0045) indicated:

"Lack of services mandates in many schools to support services for gifted learners".

Another participant (0042) showed:

> "Appropriate modification of the curriculum as many educators are out of their comfort zone to modify curriculum".

Barriers to effective learning include learning difficulties, lack of support, ineffective teaching methods, and the need for curriculum modifications. Participants noted the lack of mandated services for gifted learners (0045) and educators' unfamiliarity with adapting the curriculum (0042).

Regarding Societal/environmental Barriers

Societal/environmental barriers are external factors that hinder learning, including cultural norms, limited resources, discrimination, and inadequate policies. Overcoming these barriers requires promoting inclusive education.
Participant (0043) revealed:

> "The department focuses more on the policy, and they delay learner abilities and also the educators e.g., teaching math in Setswana rather than in English".

Another participant (0033) elaborated:

> "The environment where the learner is living to find that there are no proper facilities to cater to his or her potential because of circumstances which are beyond control e.g., poor family".

The study explored barriers to including gifted students, including obstacles to effective learning and societal/environmental factors. Participants identified challenges such as a lack of support services and difficulties in modifying the curriculum. Societal/environmental barriers, such as cultural norms and limited resources, were also discussed. Addressing these barriers is essential for creating an inclusive educational environment for gifted students.

Dealing with the Barriers to Gifted Education in the Classroom

The second aim of this research is to explore effective strategies for addressing barriers to gifted education in the classroom. Gifted education faces numerous obstacles that hinder its success, requiring the identification of suitable approaches to overcome these challenges. However, the existing discussion on this topic has been limited, with few teachers offering insights, reflecting a narrow perspective
Participant (0014) indicated:

> "Implementation of special programs to cater for these learners due to poor pre-service preparation/training of teachers".

Participant (0031) indicated:

> "Time allocated to learning not enough time is given to our learners".

Participant (0005) indicated:

"Insufficient resources to stretch unable learner beyond the curriculum".

Participant (0041) indicated:

"Overcrowding where gifted learners are mixed with slow learners. Teaching is not effective, and the classroom is not conducive".

Participant (0042) indicated:

"Appropriate modification of the curriculum as many educators are out of their comfort zone to modify curriculum".

Participant (0004) indicated:

"Lack of resources. e.g., technology in schools/wifi/textbooks."

Participant (0006) indicated:

"Problem of diversity and the language of teaching and learning"

Participant (0039) indicated:

"Want special attention and be given 1st priority in everything they do".

The study's findings highlight the importance of addressing barriers to gifted education in the classroom. Participants identified key obstacles, including poor pre-service training for teachers, inadequate learning time, limited resources, overcrowding, curriculum challenges, and issues related to diversity and language. These insights underscore the need for effective strategies to overcome these barriers and create a conducive learning environment for gifted students.

The study emphasizes the significance of equipping teachers with the necessary knowledge and strategies to address these obstacles. By addressing the identified barriers, teachers can better support the unique needs of gifted students and maximize their potential. The findings also stress the need for specialized programs, appropriate curriculum modifications, and the allocation of sufficient resources to cater to gifted learners effectively.

Additionally, the study recognizes the importance of broadening the discussion and engaging a wider range of stakeholders, including policymakers and administrators, to develop comprehensive solutions. By doing so, educational systems can create inclusive environments that prioritize the educational needs of gifted students.

Overall, this research highlights the pressing need to address barriers in gifted education and aims to empower teachers with the tools to overcome these challenges effectively. By promoting awareness and implementing evidence-based strategies,

the study seeks to improve educational outcomes for gifted students and ensure their educational success.

Discussion

This study investigates the perceptions of teachers regarding the barriers to gifted education, with a specific focus on the areas of creativity, identification, and inclusion of gifted students. Through a questionnaire, teachers provided their insights on the challenges they face in these domains. Recognizing and understanding the barriers to creativity, identification, and inclusion is paramount for the improvement of gifted education programs and practices.

The teachers' responses were coded into three categories: barriers to creativity, barriers to identification, and barriers to inclusion. Each category was further divided into subcategories based on the analysis of the teachers' questionnaires.

Regarding barriers to creativity, the study identified six subcategories: repetitive teaching, uniformity of knowledge, unprepared teachers, traditional teaching methods, limited educational context, and lack of creativity during classes. The teachers highlighted the negative impact of repetitive teaching practices on gifted students' holistic development and the need for instructional approaches that foster critical thinking and creativity. They emphasized the importance of addressing these barriers to unlock the potential of gifted students and create an inclusive and stimulating learning environment.

Barriers to identification were discussed about various subcategories, including the traditional view of education, lack of challenges in the school environment, difficulties in recognizing high abilities, students with special needs, stereotypical expectations, delays in development, incomplete information, and unfamiliarity with enrichment methods. The teachers acknowledged the need to shift the educational paradigm towards promoting critical thinking and reflection, recognizing students' unique qualities, providing appropriate challenges, and gathering accurate information about students' abilities to better support gifted students.

The barriers to inclusion were categorized into obstacles to effective learning and societal/environmental barriers. Obstacles to effective learning included learning difficulties, lack of support, ineffective teaching methods, and the need for curriculum modifications. Societal/environmental barriers encompassed cultural norms, limited resources, discrimination, and inadequate policies. Overcoming these barriers requires promoting inclusive education and addressing the specific challenges faced by gifted students.

The discussion also touched upon effective strategies for addressing these barriers in the classroom. However, the discussion in this area was limited, indicating a narrow perspective among the teachers. Some of the strategies mentioned included implementing special programs for gifted learners, providing sufficient learning time, ensuring adequate resources, and creating conducive classroom environments.

This discussion sheds light on the barriers faced by mathematics teachers in nurturing the creativity, identification, and inclusion of gifted students. It emphasizes the importance of addressing these barriers to create an inclusive and stimulating

learning environment that supports the holistic development of gifted students' talents and abilities. The discussion also highlights the need for further exploration of effective strategies to overcome these barriers and enhance gifted education in the classroom.

Conclusion

This study explores teachers' perspectives on barriers to effective gifted education. The findings indicate a lack of knowledge and understanding among teachers, emphasizing the need for improved training and professional development in gifted education. Enhancing teachers' awareness and understanding of gifted students' needs, especially in mathematics education, can help overcome these barriers. The study underscores the importance of integrating gifted education into teacher training programs and suggests further research to identify effective strategies for supporting gifted students in regular classrooms. However, gifted students are still required to meet the content standards for their grades. Therefore, curriculum changes should supplement and not replace grade-level content. Furthermore, the Gifted and Talented Education (GATE) policy for schools should be developed to adapt education to diverse needs, focusing on teaching and learning mathematics. International cooperation and international conferences in gifted education are and will continue to be important for experts and countries to reach some common understanding, share good practices, and allow for a more consistent international comparison. The findings also hold relevance for other developing countries facing similar challenges in gifted education. By contributing to the existing literature, this study highlights the significance of addressing these barriers to promote the academic and personal growth of gifted students.

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