

1 Navigating Challenges in Gifted Education: 2 A Teacher's Perspective on Overcoming Barriers

3
4 *Gifted education is of utmost importance in the development and growth of*
5 *intellectually advanced students; however, it often encounters various*
6 *obstacles that hinder its effectiveness. This research delves into the*
7 *perspectives of teachers regarding the overcoming of these barriers to*
8 *providing effective gifted education. Employing qualitative research*
9 *methods, a combination of interviews and surveys is conducted to gather*
10 *valuable insights from a diverse group of teachers. The findings shed light*
11 *on several challenges faced by teachers, including limited resources,*
12 *inadequate training, and insufficient support from stakeholders. To address*
13 *these challenges, teachers put forth potential solutions that could lead to the*
14 *improvement of gifted education. These solutions encompass enhanced*
15 *professional development opportunities for teachers, increased funding to*
16 *allocate resources effectively, and the promotion of collaboration among all*
17 *stakeholders involved. By effectively addressing these barriers, a more*
18 *inclusive and nurturing environment can be fostered for gifted students. The*
19 *study underlines the importance of integrating modules on gifted education*
20 *into teacher education programs. By incorporating these modules, future*
21 *educators can be equipped with the knowledge and skills necessary to*
22 *effectively support and educate gifted students. Ultimately, this research*
23 *contributes to a deeper understanding of the challenges faced in gifted*
24 *education and provides valuable insights that can inform policies and*
25 *practices aimed at supporting the education of gifted students.*

26
27 **Keywords:** *Barriers to gifted, Gifted learners, Teachers' perspectives,*
28 *Teachers' development.*

29 30 31 **Introduction**

32
33 Teachers' education, training, and support should prioritize the development
34 of skills necessary for understanding gifted education. Limited training in working
35 with gifted students in traditional classroom settings poses a challenge for
36 educators (Kettler, Oveross & Bishop, 2017), highlighting the complexity of gifted
37 education (Winstanley, 2006).

38 Teachers' perceptions and knowledge significantly impact student learning in
39 gifted education (Clark, 2008). These perceptions influence classroom interactions,
40 teaching methods, and learning outcomes (Troxcclair, 2013). External factors, such
41 as a country's historical, cultural, and political context, can shape perceptions and
42 policy decisions in gifted education (Taylor & Kokot, 2000). In South Africa,
43 there is limited knowledge about efforts to maximize the potential of gifted
44 students, increasing the risk of underachievement (Al-Oweidi, 2019).

45 Empirical studies on teachers' perceived barriers to gifted education are
46 valuable for improving gifted learner programs. Professional development is
47 crucial for teachers to effectively recognize and serve gifted students (Khalil &

1 Accariya, 2016; Rowley, 2012; Say, 2018). Understanding teacher perceptions is
2 essential for identifying necessary actions to enhance gifted education.

5 **Barriers to Gifted Education**

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

19 **Barriers to the Creativity of Gifted Student**

21 Creativity in the teaching and learning process is often stifled by pedagogical
22 strategies used in many institutions (Piske, Stoltz, Machado, 2014). Gifted
23 students, who are known for their exceptional creativity, require educational
24 approaches that cater to their unique needs (de Alencar, 2001, 2007; Peterson,
25 2003; Renzulli, 2004; Pérez, 2004; Piske, 2011, 2013; Piske & Stoltz, 2013;
26 Prieto, Soto, & Fernandez, 2013). Several barriers hinder the development of
27 creativity in gifted individuals, including repetitive teaching, uniformity of
28 knowledge, unprepared teachers, traditional teaching and learning processes,
29 reductionist educational contexts, and a lack of creativity and innovation in classes
30 (Alencar & Fleith, 2001; Pérez, 2004, 2009; Piske, 2013a, 2013b, 2014a, 2014b,
31 2016; Piske, Stoltz, & Machado, 2014a, 2014b; Machado, 2013). To maximize
32 their creative potential, the use of educational techniques is crucial, such as
33 promoting autonomy, openness to variety, and idea formation over conformity and
34 uniformity (Bahia & Trindade, 2013). Creating a climate that encourages
35 originality, innovation, and the production of unusual ideas is essential for
36 nurturing creativity in the classroom (Bahia & Trindade, 2013).

38 **Barriers to Identification of Gifted Student**

40 Barriers to the identification of gifted children in schools stem from various
41 factors, including the traditional view of education, lack of respect for differences,
42 insufficient challenges, difficulty in recognizing high abilities, limited awareness
43 of enrichment, and students' special needs (Piske, Stoltz, et al., 2016; Alencar,
44 2009, 2014; Virgolim, 2007; Pérez, 2004). Schools must be prepared to
45 understand students' abilities, interests, and developmental dimensions, providing
46 opportunities for them to construct knowledge at their own pace (Virgolim, 2007).

1 Recognizing the unique needs of gifted children and overcoming barriers requires
2 reflecting on knowledge, embracing diversity, promoting creativity, and
3 acknowledging students' high abilities (Piske, Stoltz, et al., 2016).

4 **Barriers to the Inclusion of Gifted Student**

6
7 Efforts towards inclusive education often fall short of fully respecting and
8 addressing the rights of children with special needs, including gifted children
9 (Melo and Almeida, 2007; Bahia and Trindade, 2013, 2014; Bahia, 2016; Piske,
10 2015, 2016). To support these children, it is crucial for society to mobilize and
11 take action. Identifying and diagnosing the needs of gifted students is the first step
12 toward providing them with specialized services. Developing inclusive schools
13 should be a prominent government policy, requiring adequate resources and
14 political commitment at all levels (UNESCO, Salamanca Statement, 1994: 41).
15 However, there is still a significant gap in achieving full inclusion for gifted
16 children in South Africa's school programs at all levels.

18 **Teachers' Viewpoints about Gifted Students**

20
21 Empirical studies from multiple countries reveal conflicting views among
22 teachers regarding giftedness (Matheis et al., 2017). Gifted children are identified
23 based on academic achievement, intellectual abilities, creativity, and social
24 intelligence (Altintas & Ilgun, 2016; Olthouse, 2014), while also displaying
25 leadership qualities and positive impact on the classroom. However, there is a
26 pessimistic perception of giftedness linked to poor social, emotional, or behavioral
27 competencies (Baudson & Preckel, 2013; Preckel et al., 2015). Some studies
28 suggest higher intellect but lower emotional stability, agreeableness, and prosocial
29 behavior among gifted students (Baudson & Preckel, 2013; Preckel et al., 2015),
30 which can result in boredom, disinterest, and related challenges (Ozcan & Kotek,
31 2015; Lassig, 2009).

32 The disharmony hypothesis proposes a link between high cognitive ability
33 and negative non-cognitive qualities, potentially explaining teachers' negative
34 perceptions (Matheis et al., 2017). However, research indicates no association
35 between giftedness and psychological disorders, nor discernible differences in
36 social and emotional skills compared to average-ability students. Teachers'
37 perceptions are not solely influenced by professional experience, but training in
38 gifted education tends to foster positive attitudes (Lassig, 2009; Pedersen &
39 Kronborg, 2014; Plunkett & Kronborg, 2016). Prioritizing ongoing professional
40 development is crucial to reshaping perceptions and creating inclusive
41 environments for gifted education (Schleicher, 2018).

Objectives of the Study

This study has two objectives:

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

Research Questions

The study sought to answer the following questions:

1. To identify and analyse the perceived barriers to gifted education specifically identified by mathematics teachers, with a focus on understanding the unique challenges faced by this group of teachers.
2. To explore and propose practical strategies that can be implemented in the mathematics classroom to effectively address and overcome the identified barriers to gifted education, as perceived by mathematics teachers.

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.

1 **Participants**
2

3 Participants in this study were selected from the AMESA 2017 conference,
4 representing math educators in South Africa. The sample includes 116
5 mathematics teachers. The diverse sample ensured reliable data. The study
6 employed voluntary participation and member checks to validate the findings,
7 enhancing the credibility of the research.
8
9

10 **Results and Data Analysis**
11

12 The teachers' responses were coded into three categories: barriers to
13 creativity, barriers to identification, and barriers to inclusion, using a predefined
14 rubric. Each category was then further divided into subcategories based on the
15 analysis of the teachers' questionnaires.
16

17 **Mathematics Teachers' Perceived Barriers to Gifted Education**
18

19 Regarding the first research aim, respondents described barriers to creativity,
20 identification, and inclusion of gifted children. Two main barriers, namely
21 creativity, and identification, were discussed in detail, indicating that mathematics
22 teachers shared more about their experiences with these specific barriers.
23 However, the discussion of barriers to the inclusion of gifted students was limited,
24 with only a few teachers providing superficial answers, demonstrating a narrow
25 perspective.
26

27 **The Barriers to the Creativity**
28

29 Barriers to the creativity of gifted students were frequently discussed and
30 categorized into six subcategories: repetitive teaching, uniformity of knowledge,
31 unprepared teachers, traditional teaching methods, limited educational context, and
32 lack of creativity during classes. However, none of the mathematics teachers
33 mentioned all six subcategories.
34

35 **Repetitive Teaching**
36

37 Participants in the study identified repetitive teaching as a significant barrier
38 that can impede the holistic development of gifted students' talents. This finding,
39 supported by the National Survey on Education and Abilities of the Intellectually
40 Gifted (NSEAI, 2008), emphasizes the negative impact of repetitive teaching
41 practices on gifted students. These barriers restrict the exploration of their
42 abilities and limit opportunities for creative and intellectually stimulating tasks.
43 To fully unlock the potential of gifted students, it is crucial to address and
44 overcome these barriers associated with repetitive teaching methods.
45 Participant (0008) explained:
46

1 *“They are not challenged by the percentage of routine questions asked in the exam*
2 *papers”.*

3

4 Another participant (0001) wrote:

5

6 *“Repetition and drill have become popular in the classroom. Teachers need only to*
7 *encourage children to solve questions they may have”.*

8

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

17

18 **Uniformity of Knowledge**

19

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

25

Participant (0040) described:

26

27 *“Teaching equally with slow learners”.*

28

29 and participant (0037) added:

30

31 *“Teachers must try to make sure that everyone had the same knowledge”.*

32

33 In conclusion, the discussion highlights the importance of addressing the
34 limitations of a uniform education system that disregards the individual
35 differences of students, particularly in the context of gifted students. Participant
36 (0040) expressed concerns about teaching equally to slow learners, while
37 Participant (0037) emphasized the need for everyone to have the same
38 knowledge. However, to better support the development of gifted students,
39 schools should prioritise tailored instruction and programs that cater to their
40 specific needs. Moving away from uniformity and embracing personalised
41 approaches can ensure that gifted students receive the appropriate level of
42 challenge and opportunities for growth, fostering an inclusive educational
43 environment that nurtures their unique talents and abilities.

44

45

46

47

1 *Teachers who are not prepared to make a class that incites curiosity and*
2 *interest of learning of their gifted students.*

3 Teachers who are not adequately prepared to create a stimulating and
4 intellectually engaging learning environment for gifted students may hinder their
5 curiosity and interest in learning. It is essential for teachers to receive training and
6 support to effectively cater to the unique needs of gifted students.

7 Participant (0045) depicted:

8
9 *“Gifted students may be sorely neglected unless all teachers are aware of their needs*
10 *and have skills to plan for them effectively”.*

11
12 One more participant (0034) portrayed:

13
14 *“Same lesson preparations for all learners”.*

15
16 The discussion underscores the critical role of teacher preparation in fostering
17 a stimulating and intellectually engaging learning environment for gifted students.
18 Insufficient teacher training and awareness of the unique needs of gifted students
19 can hinder their curiosity and interest in learning. Participant (0045) highlights the
20 potential neglect of gifted students unless teachers are equipped with the necessary
21 knowledge and skills to effectively plan for their education. Additionally, the
22 participant (0034) points out the concern of using the same lesson preparations for
23 all learners, which may overlook the specific requirements of gifted students. To
24 support the development and growth of gifted students, it is crucial for teachers to
25 receive adequate training, support, and resources that enable them to create tailored
26 instructional approaches that cater to the unique needs and abilities of gifted
27 learners. By doing so, teachers can create a learning environment that nurtures and
28 challenges gifted students, promoting their intellectual engagement, and
29 maximizing their educational potential.

30 31 **The Traditional Process of Teaching and Learning**

32
33 The traditional teaching approaches are generally teacher-directed and where
34 students are taught in a manner that is conducive to sitting and listening
35 (Tukaram, 2018).

36 One more participant (0036) unveiled:

37
38 *“They are bored since they usually seat and just listen to the teachers talking for a*
39 *period of time”.*

40
41 Participant (0019) described:

42
43 *“Schools where gifted students are not assessed accordingly. They are mixed their*
44 *papers are not special and it will look like an easy paper not challenging”.*

45
46 Traditional teaching approaches that prioritize passive listening can lead to
47 boredom among gifted students (Participant 0036). Moreover, inadequate

1 assessment practices in schools may fail to recognize the unique abilities of gifted
2 students (Participant 0019). To address these issues, there is a need for student-
3 centered teaching methods that actively engage gifted students and appropriate
4 assessments that challenge and recognize their talents. By creating dynamic and
5 stimulating learning environments, schools can better support the intellectual
6 growth and development of gifted students.

7 **Reductionist way of understanding the Educational Context**

9
10 A reductionist way of understanding the educational context can also refer to
11 the omission of important co-determinants of a multi-causal situation (Sayer,
12 2010:34), or the choice of an inappropriate perspective or conceptual framework.

13 Participant (0030) illustrated:

14
15 *“Gifted students always cause disturbances for normal learners”.*

16
17 Another participant (0033) revealed:

18
19 *“Discipline because students who are gifted do not listen to their educators*
20 *simply because most think they know better”.*

21
22 This section discussion highlights the potential limitations of a reductionist
23 approach in understanding the educational context, which may overlook important
24 co-determinants and perspectives. Participant (0030) suggests that gifted students
25 can disrupt the learning environment for other students, while Participant (0033)
26 emphasizes the challenge of discipline when gifted students may exhibit
27 independent thinking. These observations underscore the need for a more
28 comprehensive and inclusive perspective that considers the diverse factors and
29 dynamics at play in the educational setting.

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

37 **Lack of Creativity and Innovation during Classes**

38
39
40 Insufficient creativity and innovation during classes can limit the
41 engagement and intellectual growth of gifted students.

42 Participant (0015) showed:

43
44 *“The unavailability of resources at schools impacts negatively on learners. Students*
45 *usually learn best when they touch and use some equipment”.*

46
47 Another participant (0033) showed:

1 *“Lack of resources to equip the learner to put his or her abilities or strength to his or*
2 *her full potential. Example computer relevant study material”.*

3
4 The study identified barriers to the creativity of gifted students, including
5 repetitive teaching, uniformity of knowledge, unprepared teachers, traditional
6 teaching methods, limited educational context, and lack of creativity during
7 classes. Participants emphasized the need for more engaging and challenging
8 learning experiences, differentiation in teaching, and teacher training to address
9 these barriers and support the development of gifted students' creativity.

10 11 The Barriers to the Identification of Gifted Students

12
13 The barriers to identifying gifted students were discussed in relation to several
14 subcategories. These subcategories included the traditional view of education, lack
15 of challenges in the school environment, difficulties in recognizing high abilities,
16 students with special needs, stereotypical expectations, delays in development,
17 incomplete information, and unfamiliarity with enrichment methods.

18
19 *The traditional view of education centered on the transmission of information*
20 *and not on reflection on knowledge.*

21 The traditional approach to education focuses primarily on the transmission
22 of information rather than promoting critical thinking and reflection. It suggests
23 that there is a need to shift the educational paradigm towards fostering a deeper
24 understanding and encouraging students to engage in meaningful reflection and
25 analysis of knowledge.

26 Participant (0031) showed:

27
28 *“The mixture of students in one class. These combinations of students are a barrier*
29 *since a teacher will focus on weak students and neglect the smart ones”.*

30
31 Another participant (0037) revealed:

32
33 *“Too much emphasis on meeting minimum basic standard”.*

34
35 The traditional approach to education prioritizes information transmission
36 over critical thinking and reflection. This highlights the need to shift the
37 educational paradigm towards fostering a deeper understanding and encouraging
38 students to engage in meaningful analysis and reflection of knowledge.

39 However, certain barriers hinder this transition. One such barrier is the
40 mixture of students in a single class, which can lead to teachers focusing primarily
41 on weaker students, neglecting the needs of gifted students. Additionally, there is
42 an excessive emphasis on meeting minimum basic standards, which may limit
43 opportunities for intellectual growth and exploration.

44 To overcome these challenges, it is crucial to promote differentiated
45 instruction that addresses the unique needs of all students, including gifted
46 learners. Encouraging critical thinking, and reflection, and providing opportunities
47 for intellectual challenge will help create a more inclusive and enriching learning

1 environment. By shifting the focus from mere information transmission to
2 fostering a deeper understanding, education can better prepare students for lifelong
3 learning and success.

4 **Disrespect of differences and uniformity of knowledge**

6
7 "Disrespect of differences and uniformity of knowledge" refers to disregarding
8 students' unique qualities and promoting a standardized approach to education.
9 This hinders the development of gifted students and limits their individualized
10 learning experiences. Embracing diversity and personalized education is crucial to
11 nurturing the talents and potential of gifted students.

12 Participant (0037) uncovered:

13
14 *"Teachers must try to make sure that everyone had the same knowledge".*

15
16 Another participant (0033) suggested:

17
18 *"Lack of services mandates in many schools to support services for gifted*
19 *learners".*

20
21 Based on the information provided, it can be concluded that the issue of
22 "disrespect of differences and uniformity of knowledge" in education refers to
23 disregarding students' unique qualities and promoting a standardized approach to
24 education. This approach hinders the development of gifted students and limits
25 their individualized learning experiences. The statement made by Participant 0037
26 about teachers trying to ensure everyone has the same knowledge indicates a focus
27 on uniformity rather than recognizing and nurturing individual differences.
28 Additionally, participant 0033 pointed out the lack of support services for gifted
29 learners in many schools. This further reinforces the notion that the educational
30 system fails to address the needs of gifted students, as they often require
31 specialized services and tailored approaches to education. In conclusion,
32 embracing diversity and personalized education is crucial to effectively nurture the
33 talents and potential of gifted students. It is important to recognize and respect
34 their unique qualities, provide appropriate support services, and avoid a one-size-
35 fits-all approach to education. By doing so, we can create an inclusive and
36 enriching learning environment that enables gifted students to thrive.

37 38 **Lack of Sufficient Challenges in the School Environment**

39
40 Insufficient challenges in the school environment hinder the intellectual
41 growth of gifted students by depriving them of stimulating and engaging learning
42 opportunities that match their abilities and interests.

43 Participant (0040) showed:

44
45 *"Sometimes the work given to them does not benefit them if it is of average level".*

46
47 Another participant (0032) revealed:

1 *“Not given enough activities. Keeping them in a corner and concentrating on*
2 *others”.*

3
4 The lack of challenging opportunities in the school environment hinders the
5 intellectual growth of gifted students. Participant (0040) and Participant (0032)
6 both highlight this issue, emphasizing that the average-level work assigned to
7 them does not benefit them and leaves them without stimulating activities. By
8 neglecting to provide appropriate challenges that match their abilities and interests,
9 these students are unable to reach their full potential and excel academically. It is
10 crucial for educational institutions to recognize and address the unique needs of
11 gifted students, providing them with stimulating and engaging learning
12 opportunities to foster their intellectual growth. This way, we can cultivate a
13 generation of capable individuals who can make meaningful contributions to
14 society.

15
16 *The Difficulty of Recognition among Educators about the High Abilities of their*
17 *Students*

18
19 Teachers often struggle to recognize and acknowledge the exceptional
20 abilities of their students, which can hinder the appropriate support and
21 opportunities needed for gifted students to thrive.

22 Participant (00) showed:

23
24 *“Gifted learners may be sorely neglected unless all teachers are aware of their needs*
25 *and have skills to plan for them effectively”.*

26
27 Another participant (0033) designated:

28
29 *“Evaluating their ability among the same group”.*

30
31 The failure of teachers to recognize and acknowledge the exceptional abilities
32 of their students poses a significant obstacle to providing the necessary support
33 and opportunities for gifted students to flourish. Participant (00) emphasizes the
34 importance of teachers being aware of the unique needs of gifted learners and
35 possessing the skills to effectively plan for their educational requirements.
36 Additionally, Participant (0033) points out the importance of evaluating the
37 abilities of gifted students within an appropriate context, rather than comparing
38 them to their peers with average abilities. By addressing these challenges and
39 enhancing teacher awareness and competency, we can better cater to the needs of
40 gifted students, ensuring they receive the appropriate support and opportunities to
41 fully develop their exceptional talents.

42
43 *Incomplete Information about Students' Abilities*

44
45 Lack of complete information about students' abilities refers to educators not
46 having a comprehensive understanding of students' full range of capabilities. This
47 can lead to underestimating or overlooking their talents and potential, including

1 gifted students. Gathering accurate information through assessments and
2 observations is essential to better understand students' abilities and provide
3 appropriate support.

4 Participant (0047) showed:

5
6 *“Evaluating their ability among the same group”.*

7
8 Another participant (0033) was exposed:

9
10 *“Since teachers are not trained at the college level to deal with gifted students, gifted*
11 *up being ignored”.*

12
13 Participants did not mention specific challenges faced by gifted students with
14 special needs or topics such as stereotypical expectations, delays in development,
15 incomplete information about abilities, and educators' unfamiliarity with
16 enrichment strategies. These areas were not discussed during the study.

17 18 The Barriers to Inclusion

19
20 Barriers to the inclusion of gifted students were discussed in two categories:
21 obstacles to effective learning and societal/environmental barriers. These categories
22 encompass internal challenges, such as insufficient curriculum challenges, and
23 external factors, such as a lack of awareness among teachers. Addressing these
24 barriers requires tailored challenges, teacher training, and creating an inclusive
25 educational environment. By overcoming these barriers, we can empower gifted
26 students to reach their full potential and contribute meaningfully to society.

27 28 **Anything that Stands in the way of a Child being able to Learn Effectively**

29
30 Anything that stands in the way of a child being able to learn effectively"
31 refers to any factors or circumstances that hinder or impede a child's ability to
32 engage in successful and productive learning experiences.

33 Participant (0045) indicated:

34
35 *“Lack of services mandates in many schools to support services for gifted learners”.*

36
37 Another participant (0042) showed:

38
39 *“Appropriate modification of the curriculum as many educators are out of their*
40 *comfort zone to modify curriculum”.*

41
42 Barriers to effective learning include learning difficulties, lack of support,
43 ineffective teaching methods, and the need for curriculum modifications.
44 Participants noted the lack of mandated services for gifted learners (0045) and
45 educators' unfamiliarity with adapting the curriculum (0042).

1 *Regarding Societal/environmental Barriers*

2

3 Societal/environmental barriers are external factors that hinder learning,
4 including cultural norms, limited resources, discrimination, and inadequate
5 policies. Overcoming these barriers requires promoting inclusive education.

6 Participant (0043) revealed:

7

8 *“The department focuses more on the policy, and they delay learner abilities and*
9 *also the educators e.g., teaching math in Setswana rather than in English”.*

10

11 Another participant (0033) elaborated:

12

13 *“The environment where learn is living to find that there are no proper facilities to*
14 *cater to his or her potential because of circumstances which are beyond control e.g.,*
15 *poor family”.*

16

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

23

24

25 **Dealing with the Barriers to Gifted Education in the Classroom**

26

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

33 Participant (0014) indicated:

34

35 *“Implementation of special programs to cater for these learners due to poor pre-*
36 *service preparation/training of teachers”.*

37

38 Participant (0031) indicated:

39

40 *“Time allocated to learning not enough time is given to our learners”.*

41

42 Participant (0005) indicated:

43

44 *“Insufficient resources to stretch unable learner beyond the curriculum”.*

45

46 Participant (0041) indicated:

1 *“Overcrowding where gifted learners are mixed with slow learners. Teaching is not*
2 *effective, and the classroom is not conducive”.*

3
4 Participant (0042) indicated:

5
6 *“Appropriate modification of the curriculum as many educators are out of their*
7 *comfort zone to modify curriculum”.*

8
9 Participant (0004) indicated:

10
11 *“Lack of resources. e.g., technology in schools/wifi/textbooks.”*

12
13 Participant (0006) indicated:

14
15 *“Problem of diversity and the language of teaching and learning”*

16
17 Participant (0039) indicated:

18
19 *“Want special attention and be given 1st priority in everything they do”.*

20
21 The study's findings highlight the importance of addressing barriers to gifted
22 education in the classroom. Participants identified key obstacles, including poor
23 pre-service training for teachers, inadequate learning time, limited resources,
24 overcrowding, curriculum challenges, and issues related to diversity and language.
25 These insights underscore the need for effective strategies to overcome these
26 barriers and create a conducive learning environment for gifted students.

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

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

38 Overall, this research highlights the pressing need to address barriers in gifted
39 education and aims to empower teachers with the tools to overcome these
40 challenges effectively. By promoting awareness and implementing evidence-based
41 strategies, the study seeks to improve educational outcomes for gifted students and
42 ensure their educational success.

43
44
45

Discussion

This study delves into 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 in relation to 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

1 students' talents and abilities. The discussion also highlights the need for further
 2 exploration of effective strategies to overcome these barriers and enhance gifted
 3 education in the classroom.

6 Conclusion

8 This study explores teachers' perspectives on barriers to effective gifted
 9 education. The findings indicate a lack of knowledge and understanding among
 10 teachers, emphasizing the need for improved training and professional development
 11 in gifted education. Enhancing teachers' awareness and understanding of gifted
 12 students' needs, especially in mathematics education, can help overcome these
 13 barriers. The study underscores the importance of integrating gifted education into
 14 teacher training programs and suggests further research to identify effective
 15 strategies for supporting gifted students in regular classrooms. The findings also
 16 hold relevance for other developing countries facing similar challenges in gifted
 17 education. By contributing to the existing literature, this study highlights the
 18 significance of addressing these barriers to promote the academic and personal
 19 growth of gifted students.

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