

The reversal of academic underachievement viewed through the eyes of the gifted child

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Abstract

This literature review investigated studies that explored the underachievement and reversal of underachievement in gifted students. Underachievement in gifted students is of concern to parents and educators yet only a small number of studies have investigated this phenomenon through the lens of the gifted underachieving student. The role of teachers, school curriculum and peers emerged as strong themes within the literature and key findings showed that a positive teacher-student connection, an appropriately challenging curriculum, and working with like-minded peers had a strong influence on reversing academic underachievement in gifted students.

Key words: gifted, underachievement, reversal of underachievement, systematic review

Introduction

It is estimated that up to 40% of students identified as gifted underachieve (Figg, Rogers, McCormick & Low, 2012; Siegle, 2013), and long-term it has been shown that without intervention underachieving gifted students are likely to continue to underachieve in adult life (Richer, 2012). This is a cause for concern for parents and educators as the effects of underachievement impact students' self-esteem and academic progress (Grantham, 2004; Kanevsky & Keighley, 2003; Walters, 2008).

To place this in context, it is important to define what is meant by giftedness and underachievement. Giftedness can be described as outstanding natural abilities (Gagné, 2015) which generally place the gifted individual in the top 10% of their peers, and underachievement can be described as an ongoing and significant discrepancy between potential and performance (Reis & McCoach, 2000; Siegle, 2013; Whitmore, 1980).

The reversal of gifted underachievement – where a gifted student now achieves at or near their potential – addresses the issues of loss of potential (Davis & Rimm, 1994), inappropriate curriculum for gifted students (Snyder & Linnenbrink-Garcia, 2013), and social and behavioural problems that stem from inappropriate curriculum (Kanevsky & Keighley, 2003; Siegle & McCoach, 2018).

This study was framed through a systematic literature review which integrated the literature in the field of gifted underachievement (Creswell, 2014) and sought to answer two specific research questions. These questions were:

1. According to gifted students, what causes academic underachievement?
2. According to gifted students, what factors reverse underachievement?

Database Sources

The databases for the literature search were A+ Education, Education (Informit Indexes), Education Database (ProQuest), Education Research Complete, ERIC – Education Resources Information Center, Taylor and Francis Online, and Scopus. Additional areas of search included links from bibliographies sourced from the included literature, and from journals such as *Gifted Child Quarterly*, and *Gifted Child Today*.

The inclusion criteria for the selection of literature were determined as follows:

1. Participants have evidence of giftedness, evidence of academic underachievement and evidence of reversal of underachievement.
2. The literature must contain student voice as an influencing factor.
3. The literature should be focused on primary and secondary students.
4. The literature is to be peer-reviewed, that is, it contains methodology, findings, and/or replicable studies. Theses and dissertations are included as they have been reviewed by specialists in the field.
5. The literature needs to be written in English as resources for effective translation are not available.

In regards to the evidence provided, this could include multiple methods of identification of giftedness, a discrepancy between an IQ assessment and classroom achievement to demonstrate underachievement, and a correlation between performance and potential to show the reversal of underachievement.

Each database was searched three times with the three different search terms. The first search phrase was gifted AND achiev* AND mixed methods. The word achiev* was chosen as it includes both underachievement and high achievement which can equate to the reversal of underachievement. In addition, high-achievement can be synonymous with giftedness. The mixed methods search term was chosen as future research on reversing and preventing academic underachievement in gifted students will be conducted with a mixed methods approach.

The second search phrase was gifted AND reversal of underachiev*. This phrase was chosen as it is specific to the research being conducted. This provided a narrower focus to locate articles and uncovered articles that were relevant to the research questions regarding factors that cause and reverse academic underachievement in gifted students.

The third search phrase was gifted AND case studies AND underachiev*. It was important to include case studies as student voice is likely to be included in the paper. As student voice is key to this research, it was important to include case studies in the search terms.

A total of 4,143 records were found from all suggested sources after removing duplicates. These records were screened by reading through the abstract and title, and 348 titles were retained for further reading. Each of the retained records was scanned to determine if it met the inclusion criteria. Ten studies were found to meet the inclusion criteria and were retained for the literature review. The chart below (Figure 1) shows the process of the literature search.

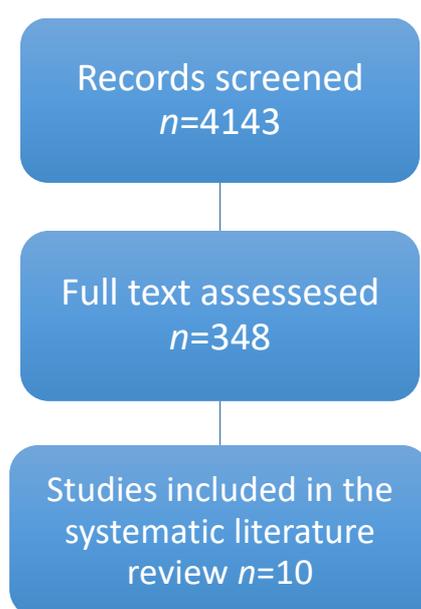


Figure 1: Flowchart of literature review process

Results

Within the context of this study, there were two mixed methods studies and the participants numbered 21 students and 12 teachers. The eight remaining studies were qualitative, for which the participants numbered 54 students as shown in Table 1. No purely quantitative studies were found. The total participants numbered 87.

Table 1: Methodology chart

Method	Author	Participants
Mixed method	Baum, Renzulli, & Hébert, 1995; Rubenstein, 2011.	21 students & 12 teachers
Qualitative only	Bennett-Rappell & Northcote, 2016; Chen-yao & Hébert, 2006; Emerick, 1992; Hébert & Olenchak, 2000; Olenchak, 2001; Richer, 2012; Rimm & Lovance, 1992; Walters, 2008.	54 students
Total:		87 participants

Gap in the Literature

Within the ten studies only four (Baum et al., 1995; Emerick, 1992; Richer, 2012; Rimm & Lovance, 1992) specifically stated the intention to investigate the reversal of academic underachievement in gifted students. Of those studies, only one (Richer, 2012) was recent, while the others were over twenty years old. The age of the studies is significant as during the time period between these studies there has been a greater awareness of giftedness, gifted education and academic underachievement in gifted students (Rimm, 2006; Siegle, 2013). Even though advances have been made in understanding gifted education, the findings from the research have not been consistently implemented as lack of teacher training in gifted education has been shown to be an issue (Peters & Jolly, 2018; Tirri, 2017). Without adequate professional learning to recognise giftedness, its importance, and how to provide appropriate curriculum, underachieving gifted students' needs will not be catered for (Moore, Ford, & Milner, 2005; Walters, 2008).

Findings

The findings of the studies were divided into two main themes: underachievement, and the reversal of underachievement. These two main themes of underachievement and reversal of underachievement contained sub-themes which elaborated on the main themes.

Within the theme of underachievement (shown in Table 2), subthemes such as peer influence, curriculum, family, emotional issues, boredom, cultural conflict, and poor health were identified in the literature (Baum et al., 1995; Chen-yao & Hébert, 2006; Olenchak, 2001; Richer, 2012).

Table 2: Factors that contribute to underachievement

Factors that contribute to underachievement	
Peer influence	Baum et al., 1995; Richer, 2012; Rubenstein, 2011.
Curriculum	Baum et al., 1995; Olenchak, 2001; Richer, 2012; Rimm & Lovance, 1992.
Family	Baum et al., 1995; Chen-yao & Héberts, 2006; Hébert & Olenchak, 2000; Richer, 2012; Rubenstein, 2011.
Emotional issues	Baum et al., 1995; Olenchak, 2001; Richer, 2012.
Social and behavioural issues	Baum et al., 1995; Hébert & Olenchak, 2000; Olenchak, 2001; Richer, 2012; Rimm & Lovance, 1992; Rubenstein, 2011.
Learning or self-regulation difficulties	Baum et al., 1995; Olenchak, 2001; Rubenstein, 2011.
Boredom	Bennett-Rappell & Northcote, 2016; Rimm & Lovance, 1992; Walters, 2008.
Teacher influence	Richer, 2012; Walters, 2008.
Cultural conflict	Chen-yao & Hébert, 2006; Rubenstein, 2011.
Poverty or disadvantage	Hébert & Olenchak, 2000; Olenchak, 2001; Richer, 2012.
Absenteeism	Olenchak, 2001; Richer, 2012; Rubenstein, 2011.
Lack of motivation	Richer, 2012; Walters, 2008.
Poor health	Richer, 2012.
Poor fit at school/perceived injustice	Richer, 2012.

Within the theme of factors that contributed to the reversal of underachievement (shown in Table 3), sub-themes such as teacher influence, peer influence, counselling, appropriate curriculum, and goal setting and motivation were identified (Baum et al., 1995; Emerick, 1992; Hébert & Olenchak, 2000; Walters, 2008).

Table 3: Reversal of underachievement

Factors that contribute to the reversal of underachievement	
Teacher influence	Baum et al., 1995; Bennett-Rappell & Northcote, 2016; Emerick, 1992; Hébert & Olenchak, 2000; Olenchak, 2001; Richer, 2012; Rimm & Lovance, 1992; Walters, 2008.
Self-regulation skills	Baum et al., 1995; Rubenstein, 2011.
Self-awareness regarding underachievement	Baum et al., 1995; Emerick, 1992.
Working in an area of interest	Baum et al., 1995; Hébert & Olenchak, 2000.
Peer influence	Baum et al., 1995; Emerick, 1992; Walters, 2008.
Counselling	Hébert & Olenchak, 2000; Olenchak, 2001; Richer, 2012; Rimm & Lovance, 1992.
Appropriate curriculum	Bennett-Rappell & Northcote, 2016; Hébert & Olenchak, 2000; Olenchak, 2001; Rimm & Lovance, 1992; Walters, 2008.
Mentor	Olenchak, 2001; Rubenstein, 2011.
Changing school	Chen-yao & Hébert, 2006; Rimm & Lovance, 1992.
Family influence	Chen-yao & Hébert, 2006; Emerick, 1992.
Real-life learning	Hébert & Olenchak, 2000.
Goal setting and motivation	Emerick, 1992; Richer, 2012; Rubenstein, 2011.
Extra-curricular activities	Emerick, 1992; Olenchak, 2001; Rubenstein, 2011.
Increased self-confidence	Bennett-Rappell & Northcote, 2016.

There was an overlap in some sub-themes that contributed to both underachievement and the reversal of underachievement (see Table 4). By identifying these key overlapping sub-themes, educators and parents may provide bespoke strategies such as individual programs (Bennett-Rappell & Northcote, 2016) and mentoring (Hébert & Olenchak, 2000) to help gifted students reverse academic underachievement.

Table 4: Overlap of sub-themes

Overlap of themes, from Underachievement and Reversal of Underachievement	
Curriculum	Baum et al., 1995; Bennett-Rappell & Northcote, 2016; Hébert & Olenchak, 2000; Olenchak, 2001; Richer, 2012; Rimm & Lovance, 1992; Walters, 2008
Teacher influence	Baum et al., 1995; Bennett-Rappell & Northcote, 2016; Emerick, 1992; Hébert & Olenchak, 2000; Olenchak, 2001; Richer, 2012; Rimm & Lovance, 1992; Walters, 2008.
Peer influence	Baum et al., 1995; Emerick, 1992; Richer, 2012; Rubenstein, 2011; Walters, 2008
Family influence	Baum et al., 1995; Chen-yao & Héberts, 2006; Emerick, 1992; Hébert & Olenchak, 2000; Richer, 2012; Rubenstein, 2011
Self-regulation	Baum et al., 1995; Olenchak, 2001; Rubenstein, 2011
Motivation	Emerick, 1992; Richer, 2012; Rubenstein, 2011; Walters, 2008

Interventions

Within the studies a number of different types of interventions were used to help reverse underachievement in gifted students (see Table 5). Of the interventions listed, Renzulli’s Enrichment Triad Model (Baum et al., 1995), allowed students to investigate a real-world problem through Type I and Type II activities which supported them in their investigation. This intervention is linked to the Maker (1982) model where curriculum differentiation for gifted students included real-world problems and real-world audiences.

Another intervention, the Creative Writing program (Bennett-Rappell & Northcote, 2016), was a program specifically designed within an Australian school. The program’s focus was to develop creative writing skills within individual students through a withdrawal, one-on-one program. Whilst the Creative Writing program showed positive results, it appeared that the effect of a student having undivided attention from a significant adult created its own positive effect as the students felt acknowledged and valued in their learning (Bennett-Rappell & Northcote, 2016).

Having the attention of a significant adult also featured in various intervention programs utilising mentors (Bennett-Rappell & Northcote, 2016; Hébert & Olenchak, 2000; Olenchak, 2001). Mentors were adults who were experts in the area that the student was interested in and the effect of mentors was profound on gifted underachieving students, with results showing significant changes in student motivation (Olenchak, 2000), attitude (Bennett-Rappell & Northcote, 2016; Hébert & Olenchak, 2000), pace of learning (Hébert & Olenchak, 2000), school attendance (Olenchak, 2001), and increase in self-esteem (Olenchak, 2001).

Alternatively, Motivational Interviewing was a specific intervention conducted by Richer (2012) which focused on the use of sessions interviewing students that allowed the student voice to be heard and supported so that attitude and motivation in the students changed. The interviewer (Richer, 2012) included examples of interviews demonstrating how listening to students who were gifted and underachieving could help them understand why they underachieved and thereby help them to achieve.

Inappropriate curriculum was demonstrated as a significant factor that caused academic underachievement in gifted students (Baum et al., 1995; Olenchak, 2001; Richer, 2012; Rimm & Lovance, 1992) with the intervention of differentiating the curriculum found to be a key to reversing the academic underachievement (Bennett-Rappell & Northcote, 2016; Hébert & Olenchak, 2000; Olenchak, 2001; Rimm & Lovance, 1992; Walters, 2008). Differentiation of the curriculum can include academic acceleration (grade or subject skipping), and variable pacing of the curriculum (Maker, 1982). It was recommended that differentiation for gifted students contained more complex content (Maker, 1982), take into account the students' perceived learning style (Renzulli & Reis, 1994) and be open-ended (Hertzog, 2004; Maker, 1982) so that student's academic needs are met and appropriate learning occurs.

Meeting students' needs was a factor in the TRIFOCAL Model which involved three important areas: students' self-perceptions, parenting practices, and the school curriculum (Rimm & Lovance, 1992). Academic acceleration was the focus of the school curriculum aspect of the TRIFOCAL Model within the Rimm and Lovance's (1992) study and academic acceleration for the study participants showed an increase in student motivation and grades.

Allowing participants to choose alternative assignments after having analysed the curriculum goals for the class was a key process in Project ATLAS (Rubenstein, 2011). The intervention had mixed results through attrition, and after the removal of the intervention one student's

results fell significantly. However, one student aspired to higher career goals as a result of the intervention.

Surveys that elicited information from gifted students and interviews that focused on the viewpoint of gifted students were used as a form of intervention (Chen-yao & Hébert, 2006; Emerick, 1992; Richer, 2012; Rubenstein, 2011; Walters, 2008) and Emerick (1992), for example, allowed the student voice to be affirmed within the interviews and the findings helped determine the causes of academic underachievement and the reversal of underachievement in gifted students. Walters (2008) also focused on student voice and used the lens of lived experience to highlight factors that helped cause and reverse academic underachievement.

Table 5: Types of interventions used

Intervention Type	Author
Enrichment Triad Model	Baum et al., 1995.
Creative Writing individual withdrawal program	Bennett-Rappell & Northcote, 2016.
Use of a mentor	Bennett-Rappell & Northcote, 2016; Hébert & Olenchak, 2000; Olenchak, 2001.
Motivational Interviewing	Richer, 2012.
Differentiation of curriculum	Bennett-Rappell & Northcote, 2016; Olenchak, 2001.
TRIFOVAL Model/Acceleration	Rimm & Lovance, 1992.
Project ATLAS: alternative assignments	Rubenstein, 2011.
Survey and/or interview	Chen-yao & Hébert, 2006; Emerick, 1992; Richer, 2012; Rubenstein, 2011; Walters, 2008.

Discussion

In response to the first research question posed – ‘According to gifted students, what causes academic underachievement?’ – gifted students within the literature indicated that *peer influence* was one of the factors that contributed to underachievement in gifted students. For example, students showed negative attitudes toward school, teachers and learning when in class (Baum et al., 1995; Richer, 2012) or tried to ‘mask’ their interest and ability in learning in order to fit in with their peers (Baum et al., 1995; Rubenstein, 2011). Gifted students were aware of the differences between themselves and their peers and would effectively hide the difference as acceptance from peers was more important (Jung, McCormick & Gross, 2012). When

achievement was masked, it meant that the teacher would possibly be unaware of the gifted student's potential (Gross, 2004). Richer (2012) and Rubenstein (2011) also cited peer influence as a factor that contributed to underachievement in gifted students, providing examples where the gifted child was bullied and felt unsafe at school and another instance was given by Richer (2012) where the student perceived the school environment to be a poor fit with their personality and their motivation (Richer, 2012).

Curriculum also contributed to academic underachievement in gifted students as inappropriate pacing and curriculum meant the gifted student may lose motivation and academically underachieve (Baum et al., 1995; Olenchak, 2001; Richer, 2012; Rimm & Lovance, 1992). Additionally, it was found that inappropriate curriculum lacked the depth and complexity that gifted students required and not cater for intellectual curiosity (Olenchak, 2001). Whilst a number of researchers presented effective frameworks for creating a challenging curriculum for gifted learners (Maker, 1982; Tomlinson & McTighe 2006; Reis & Renzulli, 2003) these were not consistently implemented in the classroom (Olenchak, 2001; Richer, 2012; Walters, 2008).

Another form of curriculum adjustment, academic acceleration, had been found to be effective in the classroom (Hoogeveen, van Hell, & Verhoeven, 2005; Rimm & Lovance, 1992); however, teachers appeared to be more concerned about potential issues of social maladjustment (Gross, 2004; Rimm & Lovance, 1992), or inappropriate cut-off scores (Olenchak, 2001), and did not implement academic acceleration. Without an appropriately challenging curriculum, such as academic acceleration, gifted students may feel devalued (Olenchak, 2001) because their needs were not met which could, in turn, bring emotional distress (Gross, 2004).

Teacher influence and attitude had been found to be crucial to student success and influenced whether the student achieved or underachieved (Baum et al., 1995; Bennett-Rappell & Northcote, 2016; Emerick, 1992; Richer, 2012; Walters, 2008). Walters (2008, p. 83) reported one student who stated, "When teachers don't understand me I find it hard to stay motivated." A lack of teacher understanding regarding the needs of gifted students is an issue, particularly as teachers often lack professional learning to recognise gifted behaviours or how to implement strategies that meet the unique needs of these students (Ford, 2006; Fraser-Seeto, 2013; Gross, 1999).

There were instances in the research where teachers had called students stupid (Walters, 2008) or where teacher expectations were so low that the gifted student conformed to those expectations (Walters, 2008). Teachers also lowered the student’s grades based on their opinion of the student (Richer, 2012) and one student spoke about teachers blaming him for something that he did not do. The lack of teacher-student dialogue troubled the student and decreased the motivation to learn in that class (Richer, 2012).

As a brief overview, other factors that were demonstrated to contribute to the academic underachievement in gifted students have been summarised in Table 6.

Table 6: Factors contributing to academic underachievement in gifted students

Factor contributing to underachievement	Description	References
Family	The effect of family pressure, shown through unrealistically high parental or family expectation, or through low or non-existent expectation.	Baum et al., 1995; Chen-yao & Hébert, 2006; Hébert & Olenchak, 2000; Richer, 2012; Rubenstein, 2011.
Emotional issues	Stemming from: family dysfunction; inappropriate curriculum; perfectionism; anxiety; depression. Emotional issues create difficulties in focusing on school work.	Baum et al., 1995; Olenchak, 2001; Richer, 2012.
Social and behavioural issues	Manifested through: negative attitude to authority; substance abuse; poor social skills; disruptive classroom behaviour. Poor social or behavioural skills short-circuit the learning experiences as students are not able to attend to their work in class.	Baum et al., 1995; Hébert & Olenchak, 2000; Olenchak, 2001; Richer, 2012; Rimm & Lovance, 1995; Rubenstein, 2011.
Lack of motivation	Extrinsic, and intrinsic, stemming from: boredom; fear of failure; inappropriate curriculum; poor teacher-student connection.	Lack of motivation

Cultural conflict	Tensions between the culture of the country-of-origin and the lived-in country increase the risk of academic underachievement in gifted students.	Chen-yao & Héberts, 2006; Rubenstein, 2011.
Poor self-regulation	Shown as: poor study habits; disorganisation; forgetfulness; poor skills in study. Lack of self-regulation means that students are not able to show their learning to others in an organised fashion.	Baum et al., 1995; Rubenstein, 2011.
Boredom	Stemming from: <ul style="list-style-type: none"> • inappropriate curriculum; • lack of challenge; • learning style poor fit; • waiting for peers to catch up. Boredom flowed on to a lack of motivation in the student and created the inability to thrive.	Bennett-Rappell & Northcote, 2016; Richer, 2012; Rimm & Lovance, 1992; Walters, 2008.
Poverty	Effects of poverty, including: <ul style="list-style-type: none"> • stigma; • socio-economic disadvantage; • financial concerns; • unable to attend schools or programs that cater to gifted students. These effects limited the engagement that the student could have in their schooling, resulting in underachievement.	Hébert & Olenchak, 2000; Olenchak, 2001; Richer, 2012.
Absenteeism	Gaps in learning and non-submission of assignments, from: <ul style="list-style-type: none"> • stress-related illnesses; • poor fit with school, curriculum; • poor health; • family responsibilities; • rebellion; • negative family attitudes toward school. 	Olenchak, 2001; Richer, 2012; Rubenstein, 2011.

Table 6: Factors contributing to academic underachievement in gifted students

In response to the second research question – ‘According to gifted students, what factors reverse underachievement?’ – gifted students in the literature confirmed that a strong *teacher-student relationship* was key to helping them reverse academic underachievement (Baum et al., 1995; Bennett-Rappell & Northcote, 2016; Emerick, 1992; Hébert & Olenchak, 2000; Olenchak, 2001; Richer, 2012; Rimm & Lovance, 1992; Walters, 2008). Also, Emerick (1992) demonstrated that a positive teacher influence was shown as being caring, willing to communicate, enthusiastic, flexible, and having high but realistic expectations for the student. Richer (2012) asserted that a caring teacher reduced the likelihood of the student dropping out of school, and highlighted that teacher expectations correlated to student achievement. The caring teacher helped form an emotional bond with the student, which had lasting effects on student academic outcomes (Baum et al., 1995). At times gifted students needed one-to-one teacher-student experiences in order to help them reverse academic underachievement (Bennett-Rappell & Northcote, 2016).

An appropriate curriculum was addressed in the literature as a factor that reversed underachievement. This linked closely to the ideas of working in an area of interest, having access to a challenging curriculum, and having the curriculum coincide with real-world relevant issues (Baum et al., 1995; Bennett-Rappell & Northcote, 2016; Hébert & Olenchak, 2000; Olenchak, 2001; Rimm & Lovance, 1992; Walters, 2008). An appropriate curriculum also involved compacting the curriculum (Hébert & Olenchak, 2000) in order to make more time for the gifted student to pursue areas of interest.

In addition to compacting the curriculum, academic acceleration was also used to reverse underachievement (Rimm & Lovance, 1992). Academic acceleration included but is not limited to subject acceleration, (for example, a student in Year 3 may do Year 4 mathematics), or to whole grade acceleration where the student would skip an entire year. Rimm and Lovance (1992) observed that despite teacher reservations and other obstacles, the parents of the student participants said that they saw the holistic benefit of their child being accelerated.

Peer influence was another factor that helped to reverse academic underachievement in gifted students (Baum et al., 1995; Walters, 2008). Additionally, working with like-minded peers had been shown to increase motivation to participate in projects and increase positive social interaction with people who understand them and their interests (Baum et al., 1995; Walters, 2008). Walters (2008) provided a case study of a gifted student who at three years of age was at the same cognitive level as the kindergarten class that he visited three times a week with his

mother who was a class helper. This student had the appropriate skills and a willingness to learn within this environment. However, when it was time for this student to attend kindergarten for himself it was a demotivating experience because his cognitive ability was far beyond that of his age-peers. It was only later that this student had the opportunity to mix with like-minded peers, which helped reverse the academic underachievement that had developed.

Due to the broad nature of the reversal of underachievement, Table 7 provides a summary of the following additional themes.

Table 7: Summary of factors contributing to the reversal of underachievement

Factors contributing to reversal of underachievement	Description	References
Motivation	Motivation was linked to: real-world or relevant issues; working in areas of strength working in areas of interest; goal setting; learning style.	Emerick, 1992; Richer, 2012; Rubenstein, 2011.
Self-regulation strategies	The specific teaching of strategies to: organise time; organise learning material.	Baum et al., 1995; Rubenstein, 2011.
Families	Parents & families helped reverse underachievement through: approval of extra-curricular activities; remaining calm amidst underachievement; placing responsibility of performance gradually on the student; having a positive attitude toward the child regardless of outcome.	Chen-yao & Héberts, 2006; Emerick, 1992, Richer, 2012.
Extra-curricular activities	Extra-curricular activities helped reverse underachievement as they: increased self-esteem through success in the activity; provided opportunity to learn new skills; provided a meaningful experience.	Emerick, 1992; Olenchak, 2001; Rubenstein, 2001.

Counselling	Counselling provided: <ul style="list-style-type: none"> • an individualised differentiation plan; • social and emotional support for the student; • improvement in attitudes toward school and grades. 	Olenchak, 2001; Richer, 2012; Rimm & Lovance, 1992.
Mentor	A mentor with specific expertise in the area of the student’s interest had a profound effect on student motivation and engagement in learning.	Bennett-Rappell & Northcote, 2016; Olenchak, 2001; Rubenstein, 2001.
Change of school or geographical location	Moving away from a neighbourhood influenced by violence contributed to the reversal of underachievement. Similarly, a change of school with the addition of an appropriate curriculum influenced achievement.	Chen-yao & Héberts, 2006; Rimm & Lovance, 1992.

Table 7: Summary of factors contributing to the reversal of underachievement

Conclusion

The results of this systematic literature review investigating the reversal of academic underachievement in gifted students revealed themes that included motivation, self-regulation and extra-curricular activities. There were also a number of that were common to both underachievement and the reversal of underachievement and included curriculum, teacher influence, and peer influence. The importance of placing value on the opinions of students who have experienced and reversed underachievement is reflected in the authenticity of lived experience and as such it is a key to helping others reverse underachievement.

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[Biographical sketches:

Jodi Lamanna's passion for education is highlighted in her current research, which focuses on the reversal and prevention of underachievement in gifted students, viewed through the lens of lived experience. The research utilises a mixed methods approach, and has the potential to bring about changes in the classroom to support the learning needs of gifted students who underachieve.

Wilma Vialle is interested in the development of giftedness and excellence in children and young people. Recent projects include studies of effective teachers of gifted students, longitudinal research on adolescent scholastic outcomes and well-being, and studies related to Ziegler's Actiotope Model of Giftedness.

Catherine Wormald's research has focused on barriers to the identification of gifted students with learning disabilities (known as Twice Exceptional students). She participated in the first National Research Project to study teachers' attitudes and knowledge of Twice Exceptional students, and has published a number of scholarly articles and book chapters on this type of student. Her current areas of research interest are Twice Exceptional students, gifted and special education, and inclusive education.]

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