

Pebble Walk for Gifted Learners: Opportunities and Challenges of Working with Gifted Learners through a Systematic Literature Review

Abstract

Diversity is a unique characteristic of gifted learners who contribute significantly to developing their nations and innovation and reforming the world. However, existing studies show that these people suffer due to a lack of proper handling of their emotional, social, and academic needs and teaching frameworks according to their needs. Teaching intervention is a specially designed program targeting individuals to improve their socio-emotional skills and academic performance. Thus, this study intends to explore various needs and challenges of gifted learners and address them with teaching interventions and frameworks explored by researchers in educational contexts. The study focused on two questions: addressing the needs and challenges of gifted learners in academic canvas and researchers' efforts regarding teaching interventions for gifted learners in existing literature. The paper follows the Systematic Literature Review. Research papers were collected with the help of Google Scholar and Mendeley Search Engine. The reference management was done with the help of another engine, Zotero. A total of 25 research papers were reviewed out of 1478, published between 2020- 2024. The inclusion criteria for paper selection were (i) full-length accessible papers, (ii) papers published during 2020-2024, (iii) papers that worked on needs, challenges, and interventions for gifted learners, (iv) middle school, and (v) preferred in English language only. Findings can be concluded from various studies supporting their emotional needs, such as developing psychosocial skills, aspirational counseling, empathetic companionship, and positive interaction with teachers. Social needs were found in bridging the gap between school and home, social connectedness, social acceptance, developing social skills, social justice, and mixed-ability classrooms. Some studies supported the idea that need-based differentiation, goal orientation, good training and competition, self-regulated learning intervention, and challenging problems are the academic needs of gifted learners. It is found that interventions are essential to address needs and overcome challenges the gifted learners face.

Keywords: Gifted Learners, Teaching Intervention, Teaching Framework, Systematic Literature Review, Pebble Walk

1. Introduction

Currently, schools are becoming more inclusive to meet students' needs and challenges. The term inclusion means including all together by providing a single platform for learning. There are many groups of children under this umbrella, but one constantly neglected group is known as gifted. These students predominantly suffer from a lack of proper support and opportunities.

Walking on stones is described as a "Pebble Walk." The pebble walk is a therapy to help people overcome their issues. Similarly, in the present study, the pebble walk term symbolizes a path to overcome hardship and challenges in the school journey of gifted learners.

The general understanding and common notion is that things are straightforward for gifted due to their inherent talent, but the reality is quite different. They struggle in their academic and social life with emotional trauma and the paper talks about that.

Gifted students are different; they are learners with a naturally high degree of performance in any field or extraordinary abilities in any specific sphere of life, in addition to receiving instruction in both cognitive and affective domains. (Lowman-Sikes, 2020, p. 4).

Gifted can be identified by teachers when they experience them having excellent capabilities in many areas or any specific talent in a single content area like art, science, mathematics, or writing, etc. These learners need a nurturing learning environment.(Ghorbanian, 2021, p. 1). They frequently demonstrate high thinking skills, vast knowledge, and linguistic fluency, allowing them to move quickly through the curriculum in their giftedness. (Alhibs, 2023, p. 2). They have high skills in creating, evaluating, organizing, and generating innovative ideas. Hence, there is an urge to develop these skills beyond essential knowledge acquisition. Furthermore, brilliant learners are renowned for their exceptional problem-solving abilities and capacity to handle various difficulties in school and life. (Alhibs, 2023, p. 2). Intelligently gifted students in public elementary schools often work with instructors in mixed-ability classes for the majority of the day. Elementary educators should try to accomplish all students' needs, even those brilliant students whose requirements are extremely diverse.(Luzaich, 2020, p. 2). According to the National Association for Gifted Children, teachers working with gifted students must know their needs and traits. (Belzic, 2022, p. 4).

2. Methods

This paper was written using a systematic literature review approach. The data collection process, study selection criteria, and data extraction methods are discussed below.

2.1 Data Collection

The authors used the Google Scholar and Mendeley search engines to search research papers for the review; the discussion related to the search engine is described in Tables 1 and 2. As the paper is themed to explore the needs of gifted learners and the efforts put forward to address their needs from an academic perspective, the keywords and key combinations to search all databases have been taken as follows: needs of gifted learners, teaching intervention for gifted learners, teaching framework for gifted learners, emotional development and gifted learners, academic excellence and gifted learners, pedagogical approach for gifted learners.

2.2 Study Selection

The authors for the selection of relevant studies follow many steps. In the first step, duplicate articles were discarded from the whole database. After that, for the first analysis, the researcher reviewed the titles and abstracts of the retrieved articles following the research questions and excluded the non-relevant articles.

Table 1: Inclusion Criteria for Study Selection

Database and Search Options	Search Options
Advanced Search on Google Scholar	With all of the words With exact phrase With at least one of the words Where my words occur Document type: Article Language: English Data range: 2020-2024
Mendeley Search Engine	With all of the words With exact phrase Document type: Article Language: English Data range: 2020-2024

During the selection process of research papers for systematic literature review, relevant and non-relevant research papers were identified by the following steps: (i) First of all, policy documents and books related to gifted education were omitted, and(ii) papers other than the

English language were also discarded. (iii) The papers available in the abstract and full length were not accessible and excluded. The inclusion criteria were full-length available articles in the English language published between 2020 and 2024 related to needs and intervention for gifted children selected in the present paper.

Table 2:
Keywords employed for search and the number of results from the database on Google Search

Keywords	Google Scholar	
Teaching Intervention for Gifted Learners	363	Total 1356
Teaching Framework for Gifted Learners	547	
Social, Emotional, and Academic Development and Gifted Learners	446	
Relevant Research Papers	95	
Only Abstract	56	
Analyzed Studies	39	
Irrelevant studies	23	
Total Article Selected	16	

After searching research papers, 95 were found in the Google Scholar search engine based on the exclusion and inclusion criteria. For 56 of them, the full text was not available, whereas, for the others, 39 full texts were thoroughly examined; among them, 23 articles were excluded which were not aligned to the research questions, and 16 research papers were found profoundly relevant. Therefore, in the end, 16 appropriate articles were selected.

Table 3:
Keywords employed for search and the number of results from the database on Mendeley Search

Keywords	Mendeley Search Engine
Inclusive pedagogy for diverse learners	114
Inclusive pedagogy for gifted learners	10
Inclusive pedagogy for diverse learners, gifted learners	124
Only abstract	113
Analyzed Studied	11
Irrelevant studies	2
Total Article Selected	9

Following Mendeley's Search, 124 research papers were found based on exclusion and inclusion criteria, and 113 full texts were unavailable. In contrast, for others, 11 full-text papers were thoroughly examined, and two irrelevant articles were discarded. At the end of this process, nine articles were selected.

Finally, 25 research studies were selected for writing the paper.

2.3 Data Extraction

Further, for data extraction, each study's data was included in this systematic review, and the full-text data was retrieved. These included author(s), publication name, title, year of publication, the research questions addressed in this study, and main findings relating to this study's research question(s). These data served as the foundation for the following analysis:

Table 4: Number of articles included in the review per journal

Database	Journal Name	Number of studies selected
Peer reviewed	Education Sciences	1
	Organization for Economic Co-operation and Development	1
	Journal of Gifted Education and Creativity	1
	OPTIMA: Journal of Guidance and Counseling	1
	International Journal of Advanced Research	1
	Teaching Education	1
Scopus	Journal of Language, Identity & Education	1
	Educación XXI	1
	Educational Psychology	1
	Applied Developmental Science	1
	Cogent Education	1
	Research in Developmental Disabilities	1
	European Journal of Contemporary Education	1
Scopus / web of science	Cypriot Journal of Educational Sciences	1
	Gifted Child Quarterly	2
	South African Journal of Education	1
	Journal of Advanced Academics	1
	Open Education Studies	1
	Journal of Education	1
	International Journal of English Literature and Social Sciences	1
	Journal of Early Childhood Research	1
Web of Science	Annals of Cognitive Science	1
	Gifted Child Today	1
	Journal of Contemporary Issues in Education	1

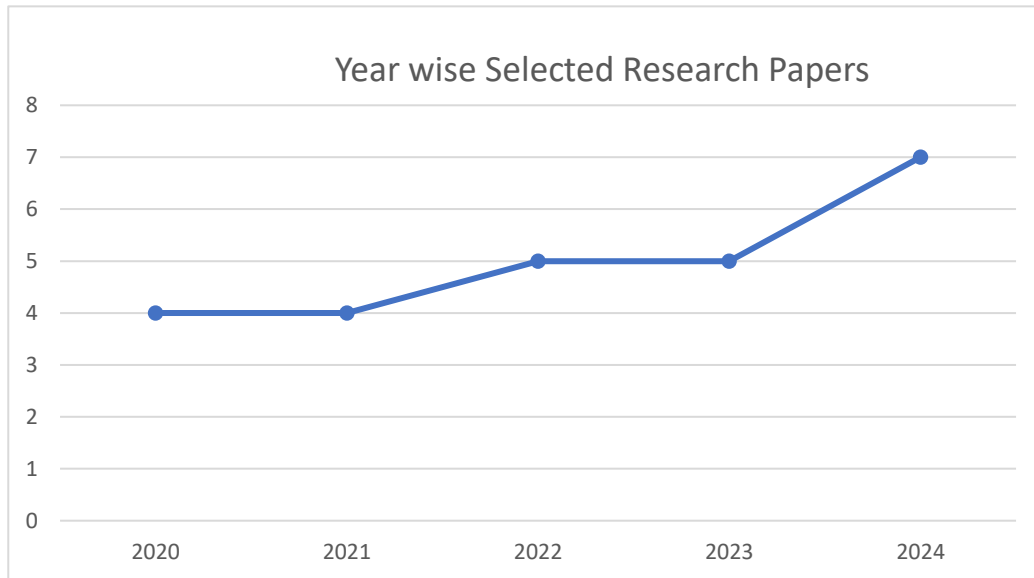


Fig 1: Showing Year-wise Selected Studies (2000-2024)

3. Data Analysis

The review analysis method adopted by the researcher is based on five major focus areas: emotional development and gifted learners, Social development and gifted learners, the academic excellence of gifted learners, Teaching Intervention for gifted learners, and Teaching framework for gifted learners. The discussion points are given below;

3.1 Diverse learners and Gifted learners

Currently, education does not appear to meet the needs of a society with diverse learning demands, where both independent and collaborative learning are crucial. Diverse learners have various needs and requirements (Meda et al., 2023, pp. 3-7). In the twenty-first century, one of the significant concerns of education is addressing the needs of diverse learners. A topic of discussion is whether a responsive teacher education curriculum meets the requirements of student teachers and how well it prepares them to teach in diverse situations (Mosito, 2023). Explaining diversity among them, one group is called "underrepresented groups in education." They experience significant inequalities or are underrepresented in educational settings relative to their representation in the general population where Rana (2024) has included various types of people such as ethnic people and racial minorities, low in income, PWDs, linguistic minorities, gender minorities, geographically isolated people, and first-generation college students. Diverse learners' needs can be addressed by many interventions, such as creating customized teaching strategies or other instructional methods to address their learning preferences (Meda et al., 2023, p. 3). Mtika et al. (2024) described that the number of diverse

student groups and their needs is increasing. Thus, student teachers should be concerned about it. Teachers should develop learning opportunities that are accessible to all learners with the help of inclusive pedagogy, where educators must respect diversity. To address the diverse needs of diverse learners, teachers must provide meaningful learning by expanding what is typically accessible in the classroom to accommodate all students. It also includes relevant partners, guardians, and other practitioners. Attfield (2022) explained the learning differences of young children from the standpoint of individual problems and illnesses and how these will affect them in the future, which includes students with autism spectrum disorders, attention deficit disorders, and sensory issues, which are prominent groups. The focus should be on what is accessible to everybody, and learning should be a shared activity. This emphasis on learning as a collaborative process represents a slight but significant change in perspective on the individual disparities among students. Adom et al. (2023) discovered that students are becoming more diverse, which makes it challenging to maintain equity in the teaching and learning processes. Diversity requires an inclusive teaching approach. Finally, diverse learners were satisfied with the course's universal design learning (UDL) adaptability and variety.

Gifted learners possess rapid intellectual development and advanced learning capacity. The cognitive, emotional, and developmental traits of gifted and talented students may differ from other students; they acquire knowledge and skills more quickly than their peers, and they require desired adjustments and modifications in their educational programs. (Kanlı, 2020, p. 1250). Educators often presume that gifted learners naturally have good study habits rather than realizing their responsibility in developing them or creating learning environments that support them. (Olszewski-Kubilius, 2024). These children have high expectations for success and excellent accomplishment since they are unique individuals with tremendous potential. The community expects that talented children will be able to contribute more to a variety of sectors in life the greater their potential. Among gifted learners, highly profoundly gifted learners are distinguished by heightened sensitivity, heightened intensity, heightened awareness, and enhanced cognitive development compared to their chronologically aged classmates. These traits influence their social, emotional, physical, cognitive, and altruistic life experiences. (Wood & Laycraft, 2020, p. 143). Gifted learners were excluded from the category of Children with special needs (CWSN). It is a fact that sufficient studies have been done about the educational needs of learners with disabilities. Still, the problem of recognizing and teaching gifted learners remains under-researched (“Organizational and Pedagogical Conditions for the Educational Process Implementation within the Inclusive Education in the Republic of Kazakhstan,” 2021, p. 713). Most people assume that gifted students can succeed

academically without extra help. Still, they might become left behind and underprivileged in the classroom, where they cannot address their individual learning needs. (Rutigliano & Quarshie, 2021, p. 7).

3.2 Needs of Gifted Learners

3.2.1 Emotional Needs of Gifted Learners

Teachers thought that compared to academic challenges, social and emotional issues related to giftedness were more confusing. (Kanlı, 2020, p. 1252). One of the emotional needs of gifted learners is the development of psycho-social skills, such as risk-taking, resiliency, and openness to feedback, which a talent development framework can cultivate. (Olszewski-Kubilius, 2024). Some emotional needs of gifted students are self-esteem, good motivation, and prevention of mental laziness, which can be boosted by acceleration without any academic or socioemotional problems, and teachers should emphasize it. (Kanlı, 2020, p. 1259). Aspirational counseling is needed for gifted learners, and counseling treatments primarily respond to issues like socio-emotional and psychological like low motivation, bullying by peers, low self-efficacy, anxiety, and poor relationship skills. (Steenbergen-Hu et al., 2020, p. 135). Sensitivity and empathy are the needs that develop morality traits, such as empathy among children and moral sensitivity to consistent moral action. (Wood & Laycraft, 2020, p. 152). Empathetic companionship is needed to address their social and emotional needs. (Rutigliano & Quarshie, 2021, p. 38). One study reveals that gifted learners preferred to be included with the heterogeneous group for their social and emotional aspects. (Ziernwald et al., 2022, p. 558). Teachers should develop self-efficacy and self-esteem among gifted learners, which are also emotional needs. (Steenbergen-Hu et al., 2020, p. 135). Trained and specialized teachers must handle psychological risks such as over-imagination, sensitivity, high motor activity, and high intensity. Usually, it is misdiagnosed by unprofessional people dealing with gifted learners without inadequate training. (Rutigliano & Quarshie, 2021, p. 21). Positive interaction with teachers is needed for gifted learners, positively affecting students' academic performance and emotional well-being at school. A supportive learning environment develops when the teacher provides emotional support. (Eva, 2022, p. 210-211).

3.2.2 Social Needs of Gifted Learners

Inclusiveness and equity are the social needs of gifted learners, which are supported by the talent development framework in a school environment by addressing their psycho-social needs, and it can be possible with the help of school-based gifted programs and services.

(Olszewski-Kubilius, 2024). Developing skills like coping behaviors, resilience, and social support are social needs of gifted students that can be improved when students are involved in learning activities within the community and school. (Steenbergen-Hu et al., 2020, p. 158). Social connectedness is needed for gifted learners, where social disconnection is responsible for trauma. (Trần & Hoàng, 2024, p. 12). They needed good sociability and social acceptance, whereas discrimination could hamper their academic success and socio-emotional well-being. (Rutigliano & Quarshie, 2021, p. 16). A mixed-ability classroom is needed by gifted students where they can be challenged by various students, and other students also can get a chance to develop themselves, which will build relationships and social skills. (Ziernwald et al., 2022, p. 541). Identification of diverse needs and potential of high-ability students is required while using differentiated classrooms. (Nicholas et al., 2024, p. 166). Bridging gaps between school and home is necessary for good social and academic growth for gifted learners. (Novak et al., 2020, p. 26). Support and encouragement are two of the social needs that parents, teachers, and friends can provide. (Eva, 2022, p. 205). Equity and social justice are essential for gifted education, so teachers should be culturally responsive. (Novak et al., 2020, p. 14). Equitable identification of assessment instruments and policies and implementation procedures for psychological development, cultural development, social development, and affective development is also needed. (Novak et al., 2020, p. 14).

3.2.3 Academic Needs of Gifted Learners

It has long been a problem for gifted education: the loss of talent among academically gifted, brilliant, and high-potential learners due to underachievement. (Steenbergen-Hu et al., 2020). A study suggested that it is critical to understand how underachievement evolves in gifted learners (Snyder et al., 2021, p. 125). One of the academic needs of gifted learners is acceleration, which helps in rapid high-level learning and does not lead to academic and socio-emotional problems. (Kanlı, 2020, p. 1259). Goal orientation is one of the academic needs of gifted learners, and there is a positive relationship between goal orientation and academic achievement. (Steenbergen-Hu et al., 2020, p. 133). Specialized intervention is also a requirement for gifted learners. (Steenbergen-Hu et al., 2020, p. 157). Trần & Hoàng (2024) mentioned that good training and competition are needed by gifted learners, which helps in academic success. Self-regulated learning intervention is required for both gifted and average learners, and it will be tailored to each level of learning. (Qadaristin, 2021, p. 58). They must develop an attitude of self-regulated learning, which helps in learning goals, monitoring, controlling, and regulating their motivation, cognition, and behavior. Mathematically gifted

students require skills like problem-solving and self-regulated learning, which develop mathematical understanding. (Yazgan-Sag & Argun, 2024, p. 1-2). Gifted learners need challenging problems and should be open to questioning and interpreting, which helps them show their existing potential and self-regulating behavior. (Yazgan-Sag & Argun, 2024, p. 13). Research found that they preferred to be included with the homogenous group for their social and academic needs. (Ziernwald et al., 2022, p. 558). Need-based differentiation is one of the requirements of gifted learners, which nurtures gifted and high-performing students' talents (Nicholas et al., 2024).

3.3 Challenges of Gifted Learners

Low drive, low self-worth, peer bullying, nervousness, or inadequate interpersonal abilities are socio-emotional challenges for gifted learners (Steenbergen-Hu et al., 2020, p. 135). Emotional distance is also challenging for gifted learners (Trần & Hoàng, 2024, p. 10). An influential educational label for young children is the "barrier to learning and participation," which identifies the provision rather than the student (Attfield, 2022, p. 3). Challenges in their journey of education, such as low self-esteem and loneliness (Rutigliano & Quarshie, 2021, p. 17). Psychological threats are often incorrectly diagnosed by professionals who lack sufficient experience in managing gifted learners (Rutigliano & Quarshie, 2021, p. 21). When determining giftedness, attention-deficit/hyperactivity disorder or emotional and behavioral disorders are usually ignored (Rutigliano & Quarshie, 2021, p. 21). Geographical location, socio-economic backgrounds, and unequal resources hamper parental participation of parents from different social classes, affecting learners' learning experiences (Trần & Hoàng, 2024, pp. 5-6). The inability to access economic capital causes academic difficulties due to improper facilities and materials (Trần & Hoàng, 2024, p. 11). Extraordinarily talented children are frequently misinterpreted, mislabeled, and misdiagnosed by educators, school officials, untrained psychologists, counselors, and physicians (Wood & Laycraft, 2020, p. 144). Profoundly gifted may feel disconnected from the outside world, classmates, and themselves (Wood & Laycraft, 2020, p. 149). Gifted learners can be at risk for maladjustment if their requirements are not acknowledged, understood, and supported (Wood & Laycraft, 2020, p. 149). The issues of loneliness, alienation, peer rejection, and social isolation cannot be emphasized (Wood & Laycraft, 2020, p. 152). The negative response of society toward gifted learners causes social rejection and isolation (Wood & Laycraft, 2020, p. 148). Intersectionality can lead to grouping and discrimination, affecting social and emotional well-being and academic success (Rutigliano & Quarshie, 2021, p. 16). Gifted learners with an IQ of 160

or above face problems with social acceptance (Eva, 2022, p. 211). Improper knowledge about acceleration causes knowledge gaps and emotional issues (Kanlı, 2020, p. 1250). Need-based differentiated education is not implemented correctly due to misconceptions and teachers' lack of knowledge (Nicholas et al., 2024, p. 157). Gifted education has grown tremendously in the UAE, but it is also critical to consider how a particular policy should be implemented consistently and methodically (Ismail et al., 2022, pp. 16–20).

3.4 Interventions and Frameworks for Gifted Learners

The talent development framework minimized giftedness's psychological, social, and emotional challenges. It stresses the development of psychosocial abilities that promote high accomplishment, such as taking risks, being open to criticism, and resilience.(Olszewski-Kubilius, 2024). Acceleration is an effective intervention in the field of gifted education. For gifted learners, It allows students to move according to their pace and readiness (Kanlı, 2020, p. 1250). In a study, 95% of teachers revealed that acceleration is a specialized approach for gifted learners and should be implemented (Kanlı, 2020, p. 1253). The achievement goal theoretical framework helps in mastery goal orientation, students' purposeful engagement in study, and risk-taking (Steenbergen-Hu et al., 2020, p. 133). Self-regulated motivational framework develops learning that is self-regulated is an active, constructive process in which learners establish learning objectives and then make an effort to monitor, regulate, and control their motivation, behavior, and cognitive processes, guided (Steenbergen-Hu et al., 2020, pp. 133-134). Self-regulated learning is a broad framework based on a social cognitive approach. It makes a learner an active agent in his learning process (Yazgan-Sag & Argun, 2024, p. 1). This approach helps determine the success of the teaching and learning process. Students learning in a self-directed manner can adjust, manage, direct, and control themselves whenever they face challenges in their learning process. It provides a holistic view by including self-regulating strategies, motivational strategies, metacognitive strategies, and strategies for monitoring resources (Qadaristin, 2021, p. 56; Vicente et al., 2023). Problem-solving model develops mathematical understanding. It uses metacognitive strategies, problem awareness and comprehension, and implementations of prior knowledge (Yazgan-Sag & Argun, 2024, p. 2). Steenbergen-Hu et al. (2020) found an Achievement-oriented Model-based intervention that improves school performance by increasing learning motivation and engagement. Talented underachievers can enhance their academic achievement. Ziernwald et al. (2022) described differentiated instruction as positively affecting high-achieving learners in a mixed-ability classroom. It focuses on significant areas like philosophical aspects, assessment and evaluation

of students, and general principles. Differentiation pedagogy is based on flexible education; teachers focus on students' different learning abilities, psycho-social needs, and cognitive characteristics by responding to them. DI builds instruction from students. It is considered an educator's strategic application of various approaches to accommodate student diversity in ways that will maximize learning and provide multiple channels and options for accessing, interpreting, and expressing their learning (Rutigliano & Quarshie, 2021, pp. 40-41; Nicholas et al., 2024, p. 155). AI can improve individualized learning. This technology can provide individualized, stimulating learning experiences in classroom situations that align with constructivist approaches, encouraging active learning and customized education for high achievers. Artificial Intelligence offers the ability to support sophisticated intellectual conversations and improve the educational experiences of exceptional students in the context of addressing and meeting the needs of this particular target population (El Naggar et al., 2024, p. 1). Mixed-ability classrooms can promote the social development of gifted learners (Rutigliano & Quarshie, 2021, p. 42). Cross-cultural conversations and activities develop empathy and understanding of diverse learners (Senior Teacher of the English Language Sector Center for Teaching Uzbek and Foreign Languages Tashkent State University of Economics Islam Karimov Street 49. & Ziyoda Abdumalikovna, 2023, p. 90). Cooperative learning techniques can promote inclusion in mixed-ability classrooms. It helps develop creativity, critical thinking, and collaborative skills and implements D.I. (Attfield, 2022, p. 3). The jigsaw classroom method can be used in cooperative learning, which Elliot Aronson developed in the 1970s (Rutigliano & Quarshie, 2021, p. 45). Online learning community helps in distance monitoring practice and develops critical thinking and creativity skills. The digital classroom approach includes four primary tools: social media applications, MOOCS, emails, and interactive communication platforms (Rutigliano & Quarshie, 2021, p. 46). Career counseling is helpful in talent development, provides socio-emotional support, and in choosing a promising career (Rutigliano & Quarshie, 2021, p. 48). Response to Intervention (RtI) With High-Ability Learners provides flexibility in designing interventions to accelerate curriculum in one subject area for high-ability learners and remediated instruction in another. (Roberstson&Pfeiffer,2016, pp.9-23). In professional learning, the needs of educators, students, communities, schools, and other stakeholders are reflected. In the program, Learning experiences must be systematic and continuous, include introspection and feedback, and offer real-world applications integrated into the work (Novak et al., 2020, pp. 3-4). Gubbels et al. (2022) researched a computer-based enrichment program that they found helpful in developing analytical abilities. In this program, teachers can provide assignments to gifted students one

hour per week for (25 weeks) where students are free to choose assignments based on their interests and assignments related to diverse subjects. However, educators should ensure that the assignments focusing on analytical and creative abilities align with students' intellectual capacities.

4. Discussion

The conversation has gone through a detailed review analysis of the existing literature on gifted learners' needs. It has been figured out that gifted students face loneliness and trauma and require empathy. Thus, teachers and parents should provide aspirational counseling, moral sensitivity, and empathetic companionship. In a heterogeneous group, the positive relationship between teachers and peers decreases feelings of loneliness. In a social context, these learners are always isolated and feel left out. Therefore, there is a need to reduce isolation, whereas enhancing inclusiveness and equity, social support and encouragement, social connectedness, and social acceptance is a kind of support to them. It is an urge for hours to bridge gaps between school and home, and a mixed-ability classroom requires developing cooperation and collaboration skills. It has been observed that if a person is not socioemotionally well, it affects their academic performance, and these learners have diverse academic needs such as specialized interventions, need-based differentiations, acceleration, goal orientation, good training and competition, self-regulated learning, challenging problems with open questioning, etc. Gifted learners face many challenges that teachers, stakeholders, and administrators generally ignore. The above-discussed needs need to be addressed appropriately; otherwise, it is tough for them to color their life sphere. It is also discussed that to remove these challenges; many researchers provided various interventions, which are talent development framework, acceleration, self-regulated motivational framework, achievement goal theoretical framework, problem-solving model, achievement-oriented model, differentiation pedagogy and instruction, use of Artificial Intelligence, mixed ability classroom, online learning community, Computer-based enrichment program and Response to Intervention (RtI) with High-Ability Learners. Teachers should give a suitable learning environment for gifted students by identifying and meeting their needs with the help of parents. Policymakers should understand their needs and challenges and ease them across all platforms. School managers and administrators should make necessary arrangements to implement various interventions and frameworks and give autonomy to teachers working with them. Policymakers can use this information about gifted students while formulating educational policies for students.

5. Conclusion

Based on the findings, it is concluded that gifted learners are assets of the global community, and the teaching-learning process and surrounding environment should support the learners' emotional, social, and academic domains. The diverse needs, requirements, and challenges of gifted learners should be addressed through socio-emotional and teaching interventions. All these efforts would be a **pebble walk** for them to continue their journey easily. Thus, all stakeholders, including the teacher community, must create a pebble walk for the gifted students.

Disclaimer (Artificial intelligence)

At this moment, authors (Prof. Anjali Sharma and Ashutosh Kudei) declare that no generative AI technologies such as large language models like ChatGPT, COPILOT, and text-to-image generators have been used during the writing or editing of this manuscript. Grammarly and search engines like Google Scholar, Mendeley, and Zotero reference management tools were used to collect data and manage references.

References

- Adom, D., Abroampa, W. K., Amoako, R., Toquero, C. M., & Kquofi, S. (2023). Towards an Inclusive Pedagogy: Applying the Universal Design for Learning in an Introduction to History of Global Art Course in Ghana. *Journal of Contemporary Issues in Education*, 18(1), 79–97. <https://doi.org/10.20355/jcie29529>
- Attfield, K. (2022). The young child's journey of 'the will': A synthesis of child-centered and inclusive principles in international Waldorf early childhood education. *Journal of Early Childhood Research*, 20(2), 159–171. <https://doi.org/10.1177/1476718X211051184>
- Alhibs, M. S. (2023). *Social and Emotional Strategies: The Perspectives of High School Gifted Students and AIG Directors* [PhD Thesis, The University of North Carolina at Charlotte]. <https://search.proquest.com/openview/e1b9fdb5261687319be315b2265a694/1?pq-origsite=gscholar&cbl=18750&diss=y>
- Belzic, C. (2022). *Teachers' perceptions of differentiated instruction for gifted students in the middle school general classroom* [PhD Thesis, Walden University]. <https://search.proquest.com/openview/aa61690a506d999e848c8c83bcbd47f3/1?pq-origsite=gscholar&cbl=18750&diss=y>
- El Naggat, A., Gaad, E., & Inocencio, S. A. M. (2024). Enhancing inclusive education in the UAE: Integrating AI for diverse learning needs. *Research in Developmental Disabilities*, 147, 104685. <https://doi.org/10.1016/j.ridd.2024.104685>
- Eva, N. (2022). Gifted students' achievement in Natural Science: A modeling study. *Journal of Gifted Education and Creativity*, 9(2), 203–218. <https://dergipark.org.tr/en/pub/jgedc/issue/69844/1126021>
- Ghorbanian, S. H. (2021). *Teachers' Perceptions of Differentiation in a Gifted and Talented Middle School* [PhD Thesis, University of Houston]. <https://uh-ir.tdl.org/bitstreams/ec15bacf-2d88-410c-bece-7729a136f415/download>

- Gubbels, J., Segers, E., & Verhoeven, L. (2022). Effects of a computer-based enrichment programme on the development of analytical and creative abilities in gifted students. *Educational Psychology, 42*(9), 1109–1126. <https://doi.org/10.1080/01443410.2022.2117794>
- Ismail, S. A. A., Alghawi, M. A., & AlSuwaidi, K. A. (2022). Gifted education in United Arab Emirates: Analyses from a learning-resource perspective. *Cogent Education, 9*(1), 2034247. <https://doi.org/10.1080/2331186X.2022.2034247>
- Kanlı, E. (2020). Turkish teachers' views on acceleration. *Kıbrıslı Eğitim Bilimleri Dergisi, 15*(5), 1249–1261. <https://www.ceeol.com/search/article-detail?id=967361>
- Lowman-Sikes, F. J. (2020). *Authentic Assessments and Their Impact on Engagement of Gifted Learners in Washington County Public Schools: An Action Research Study* [PhD Thesis, University of South Carolina]. <https://search.proquest.com/openview/4c8a2ada430a20f4f09331ab49d51f16/1?pq-origsite=gscholar&cbl=51922&diss=y>
- Luzach, F. (2020). “Some Days We Don't Learn Anything New”: A Phenomenological Study of Intellectually Gifted Elementary Students. <https://digitalcommons.georgefox.edu/edd/140/>
- Meda, L., Efthymiou, E., AlHammadi, M., Williams, C., & Fteiha, M. (2023). Conceptualizing and Reimagining the Future of Inclusive Education in the UAE. *Open Education Studies, 5*(1), 20220205. <https://doi.org/10.1515/edu-2022-0205>
- Mosito, C. P. (2023). Enhancing inclusive education through active student-teacher participation: A case study of a university in Cape Town. *Journal of Education, 92*, 186–205. <https://doi.org/10.17159/2520-9868/i92a11>
- Mtika, P., Robson, D., Graham, A., & MacDougall, L. (2024). Student teachers' perspectives of learning to enact an inclusive pedagogy: Insights for working in high poverty school environments. *Teaching Education, 35*(1), 45–60. <https://doi.org/10.1080/10476210.2023.2198206>
- Nicholas, M., Skourdoumbis, A., & Bradbury, O. (2024). Meeting the Needs and Potentials of High-Ability, High-Performing, and Gifted Students via Differentiation. *Gifted Child Quarterly, 00169862231222225*. <https://doi.org/10.1177/00169862231222225>
- Novak, A. M., Lewis, K. D., & Weber, C. L. (2020). Guiding Principles in Developing Equity-Driven Professional Learning for Educators of Gifted Children. *Gifted Child Today, 43*(3), 169–183. <https://doi.org/10.1177/1076217520915743>
- Olszewski-Kubilius, P. (2024). Where Are We Now with the Implementation of the Talent Development Framework for Gifted Students and Where Do We Go in the Future? *Education Sciences, 14*(9), 932. <https://www.mdpi.com/2227-7102/14/9/932>
- Organizational and Pedagogical Conditions for the Educational Process Implementation within the Inclusive Education in the Republic of Kazakhstan. (2021). *European Journal of Contemporary Education, 10*(3). <https://doi.org/10.13187/ejced.2021.3.711>

Qadaristin, D. F. L. (2021). Assessing self-regulated learning in primary school: A systematic literature review. *OPTIMA: Journal of Guidance and Counseling*, 1(1), 55–72. <https://ejournal.upi.edu/index.php/optima/article/view/35834>

Rana, D. K. (2024). Quality Education for Underrepresented Groups: Bridging the Gap. *International Journal of English Literature and Social Sciences*, 9(1), 212–219. <https://doi.org/10.22161/ijels.91.28>

Robertson S, Pfeiffer S.(2016). Development of a procedural guide to implement response to intervention (RtI) with high-ability learners. *Roeper Review*. Jan;38(1):9-23. doi: [10.1080/02783193.2015.1112863](https://doi.org/10.1080/02783193.2015.1112863)

Rutigliano, A., & Quarshie, N. (2021). *Policy approaches and initiatives for the inclusion of gifted students in OECD countries*. <https://www.oecd-ilibrary.org/content/paper/c3f9ed87-en>

Senior Teacher of the English Language Sector Center for Teaching Uzbek and Foreign Languages Tashkent State University of Economics Islam Karimov Street 49., & Ziyoda Abdumalikovna, P. (2023). OPPORTUNITIES FOR PEDAGOGICAL SUPPORT OF THE PROCESS OF INCREASING THE SOCIAL ACTIVITY OF STUDENTS IN LEARNING ENGLISH. *International Journal of Advanced Research*, 11(10), 83–92. <https://doi.org/10.21474/IJAR01/17680>

Snyder, K. E., Carrig, M. M., & Linnenbrink-Garcia, L. (2021). Developmental pathways in underachievement. *Applied Developmental Science*, 25(2), 114–132. <https://doi.org/10.1080/10888691.2018.1543028>

Steenbergen-Hu, S., Olszewski-Kubilius, P., & Calvert, E. (2020). The Effectiveness of Current Interventions to Reverse the Underachievement of Gifted Students: Findings of a Meta-Analysis and Systematic Review. *Gifted Child Quarterly*, 64(2), 132–165. <https://doi.org/10.1177/0016986220908601>

Trần, H. T., & Hoàng, H. T. (2024). The Development of Exceptional EFL Learner Identity: A Narrative Inquiry of Former Gifted Learners. *Journal of Language, Identity & Education*, 1–15. <https://doi.org/10.1080/15348458.2024.2317719>

Vicente, M. M., Riveiro, J. M. S., & Barroso, C. V. (2023). Strategic-motivational profile and academic achievement in primary school students. *Educación XXI*, 26(1), 141–163. <https://www.redalyc.org/journal/706/70675276006/html/>

Wood, V., & Laycraft, K. (2020). How can we better understand, identify, and support highly gifted and profoundly gifted students? A literature review of the psychological development of highly-profoundly gifted individuals and overexcitability. *Annals of Cognitive Science*, 4(1), 143–165. https://www.researchgate.net/profile/Krystyna-Laycraft/publication/343937098_How_Can_We_Better_Understand_Identify_and_Support_Highly_Gifted_and_Profoundly_Gifted_Students_A_Literature_Review_of_the_Psychological_Development_of_Highly-profoundly_Gifted_Individuals_and_Overexci/links/5f5a802e299b1d43cf9795d/How-Can-We-Better-Understand-Identify-and-Support-Highly-Gifted-and-Profoundly-Gifted-Students-A-Literature-Review-of-the-Psychological-Development-of-Highly-Profoundly-Gifted-Individuals-and-Overex.pdf

https://www.researchgate.net/profile/Krystyna-Laycraft/publication/343937098_How_Can_We_Better_Understand_Identify_and_Support_Highly_Gifted_and_Profoundly_Gifted_Students_A_Literature_Review_of_the_Psychological_Development_of_Highly-profoundly_Gifted_Individuals_and_Overexci/links/5f5a802e299b1d43cf9795d/How-Can-We-Better-Understand-Identify-and-Support-Highly-Gifted-and-Profoundly-Gifted-Students-A-Literature-Review-of-the-Psychological-Development-of-Highly-Profoundly-Gifted-Individuals-and-Overex.pdf

Yazgan-Sag, G., & Argun, Z. (2024). Self-control and self-monitoring behavior of gifted learners in the mathematical problem-solving process: A case study. *South African Journal of Education*, 44(1), 1–19. <https://www.ajol.info/index.php/saje/article/view/268909>

Ziernwald, L., Hillmayr, D., & Holzberger, D. (2022). Promoting High-Achieving Students Through Differentiated Instruction in Mixed-Ability Classrooms—A Systematic Review. *Journal of Advanced Academics*, 33(4), 540–573. <https://doi.org/10.1177/1932202X221112931>

UNDER PEER REVIEW