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Introduction



Every child possesses unique abilities and talents, however, some exhibit exceptional capabilities and potential that surpass typical expectations for their age or grade level. These talented learners necessitate specialized support and education to fully realize their potential.

Understanding the distinction between general groups of learners and those requiring specialized attention is crucial. While all learners can achieve greatness, talented individuals often need tailored instruction, curriculum adaptations, and specialized programs to nurture their innate talents and skills.

Teaching strategies for these learners should align with their unique strengths, interests, and learning preferences, fostering an environment that promotes critical thinking, creativity, and problem-solving. By providing opportunities for passion-driven exploration, advanced thinking, and interaction with peers of similar abilities, educators can significantly enhance the learning experience for talented students. Implementing effective educational strategies for talented learners is not just beneficial for the individuals, it enhances the overall quality of the educational system. Offering suitable challenges and support helps in unlocking the full potential of these learners, preparing them for future endeavors.

Conversely, a lack of recognition and support for their needs can lead to disengagement, underperformance, and a consequent loss of potential, adversely affecting both the individuals and society at large.

This chapter introduces the "Kangaroo methodology", a comprehensive approach designed to aid educators in selecting and applying the most effective strategies for cultivating the talents and abilities of talented learners within the educational system. By adhering to this methodology, we can ensure that these exceptional individuals not only reach their maximum potential but also contribute positively to the world.

Talented learners, who are they?

Talented learners are students with exceptional skills or abilities in specific areas beyond their peers.

Talented learners can be classified into two groups: students who demonstrate a natural aptitude or ability in a particular area or domain (Neihart, 2021; Gagné, 2018), and students who possess an exceptional level of natural ability in one or more areas (Gross, 2021; Oliveira, 2016).

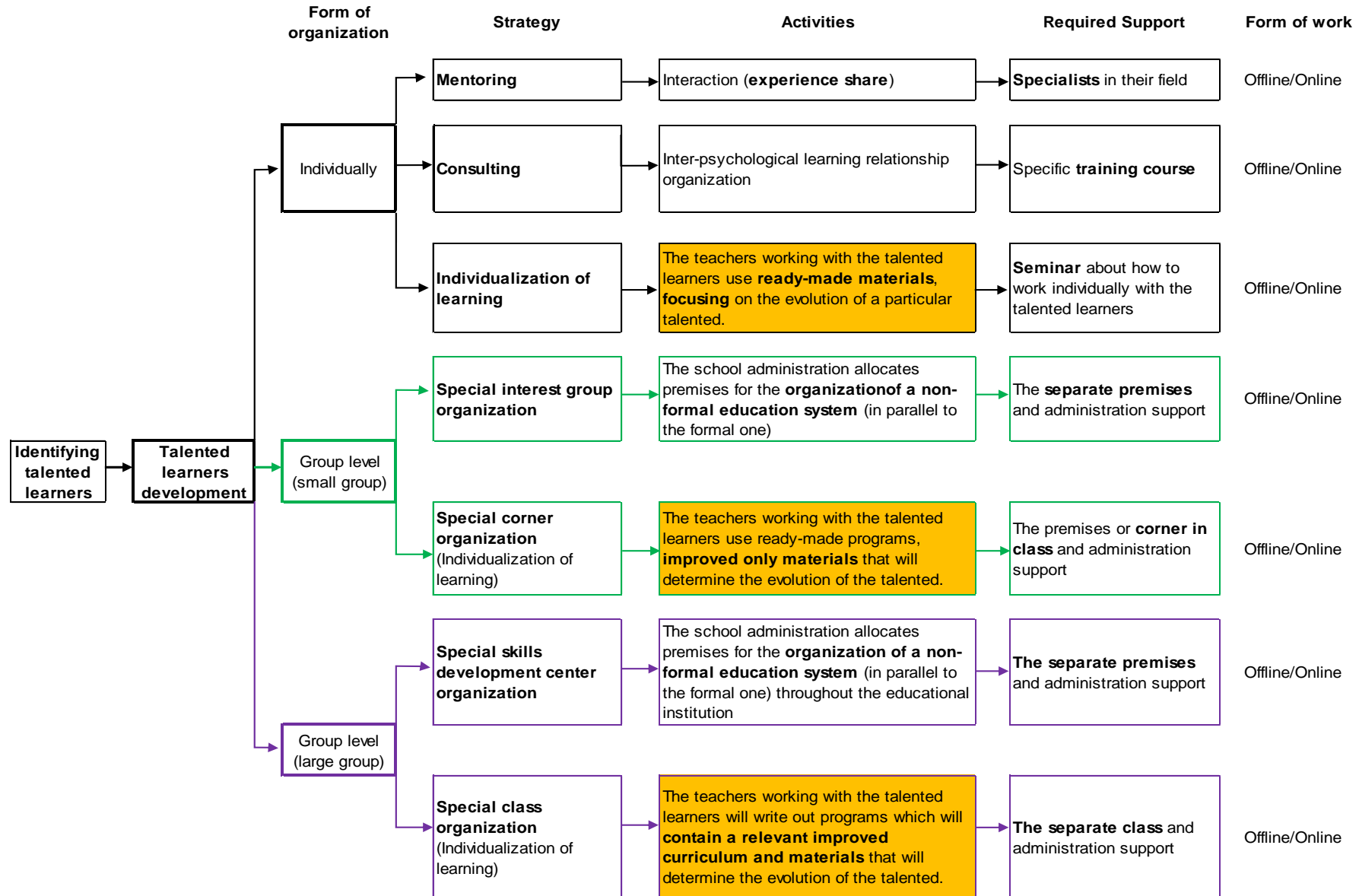
What is "Kangaroo Methodology"?

The "Kangaroo Methodology" is a three-step educational approach focused on identifying, assessing, and developing the abilities of talented learners through tailored strategies.

This methodology focuses on enhancing learners' evident abilities and nurturing their potential to manifest further (Subotnik, Olszewski-Kubilius, & Worrell, 2011). By recognizing and supporting each student's unique talents and strengths, the aim is to guide them towards realizing their utmost capabilities and contributing positively to society.

The approaches are informed by the distinctive characteristics and needs of talented learners, who possess a unique blend of talents and aptitudes requiring dedicated educational approaches (Cross, Cross, & McCoach, 2020). Therefore, the strategies emphasize key areas essential for their development. Consequently, a detailed compilation of strategies is provided (refer to "Personalized education model for talented learners"), tailored to meet the distinct needs of these exceptional learners, thereby equipping them with the requisite support and opportunities for success.

Personalized education model for talented learners



To grasp the model and ensure the effective selection and integration of strategies into an educational institution's activities and processes, the following issues will be explored:

- What are the necessary conditions for integration?
- How does this methodology function?
- What do the learners think?
- What do the teachers think?
- What is the concept of Family Based Education?
- Who can work with talented learners?

1. Necessary conditions for integration

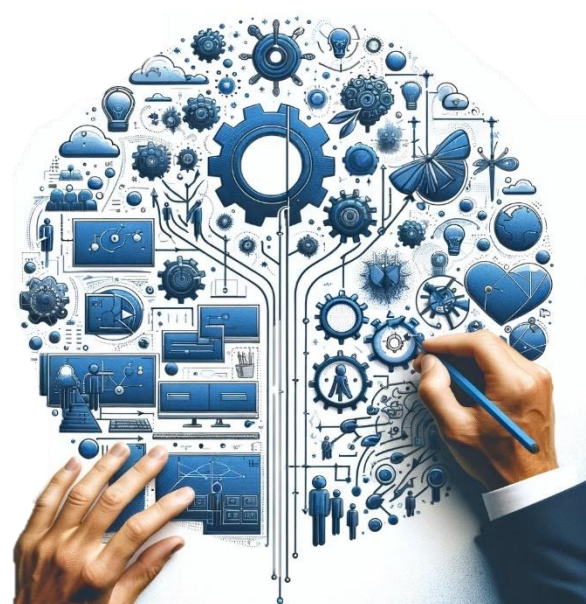
Main idea of model

Structure

Working with talented learners is carried out in **three stages** (Rogers, 2020; Moon, & Brighton, 2011; Vialle, et al., 2007; Yusof, Buang, & Mohamed, 2017):

Stage I - Identifying talented learners

The first stage of working with Talented learners is to identify them. This can be done through a variety of methods, such as observation, academic testing, and talent assessments. It is important to consider all aspects of a learner's performance, including their success in academic and non-academic activities, as well as their creativity, leadership skills, and other indicators of giftedness.



Stage II - Individual assessment of learner abilities

Once identified, the next stage is to assess the individual abilities and characteristics of the learner. This involves a more detailed analysis of their strengths and weaknesses, interests, learning style, and other factors that may impact their development. This stage may involve the use of standardized assessments, as well as observation and interviews with the learner and their teachers, parents, and other caregivers.

Stage III - Formation, deepening, and development of learner abilities

The final stage of working with talented learners is to develop appropriate strategies and methods to help them reach their full potential. This may involve providing opportunities for

enrichment and acceleration in areas where the learner has demonstrated exceptional ability, as well as support and guidance to help them develop new skills and overcome challenges. The focus should be on individualized approaches that take into account the unique strengths and needs of each learner, as well as the characteristics of the *talented learner's* population as a whole.

Important Factors

In developing talented learners, there are several key areas that must be taken into account. The following factors have been identified as crucial for the integration of strategies for nurturing talented learners:

1. **Offering challenging curriculum** (Little, 2012): Offer challenging and advanced curriculum that meets the learner 's intellectual needs and allows them to continue to grow and learn. This can include subjects such as science, mathematics, literature, and history, as well as opportunities to explore their interests and passions.
2. **Encouraging and nurturing interests and passions** (Reis, Renzulli, & Renzulli, 2021): Encourage the learner to pursue their interests and passions and provide opportunities for them to learn and grow in those areas. By doing so, they can build mastery and confidence in their talents, which helps to foster a love of learning.
3. **Developing skills and abilities** (Renzulli, 2014): Provide opportunities for the learner to practice and refine their skills and abilities. This can involve formal training such as taking classes or lessons, as well as informal learning opportunities that allow them to apply their talents.
4. **Building self-esteem and confidence** (Bakar, 2020): Help the learner to develop a positive self-image and a sense of self-worth by praising their efforts and accomplishments, as well as helping them to develop resilience in the face of setbacks or failures.
5. **Encouraging creativity and critical thinking** (Chan, & Yuen, 2015): Foster the learner 's creativity and ability to think critically and solve problems. This can be achieved by exposing them to diverse experiences and ideas, encouraging them to ask questions and explore new perspectives, and helping them to develop their own creative and critical thinking skills.
6. **Encouraging creativity and independent thinking** (Karen, 2010): Foster the learner 's creativity and ability to think independently by exposing them to diverse experiences and ideas, encouraging them to ask questions and explore new perspectives, and helping them to develop their own creative and critical thinking skills.
7. **Building a supportive network** (Lee et al., 2015): Connect the learner with other people who share their interests and abilities, such as teachers, coaches, mentors, or peers. This can help them to feel connected and supported, as well as provide opportunities for them to learn and grow together.
8. **Encouraging emotional and social development** (Neihart, 2021): Supporting the learners emotional and social development is also important. This can involve helping them to develop empathy, self-awareness, and strong interpersonal skills, and addressing any emotional or social challenges that may arise.

Main factors

Six important factors for the development of talented learner behavior: **adaptation, creativity, task commitment, self-efficacy, beliefs about their individual intellectual abilities and motivation to succeed.**

In summary, the factors for developing talented learners have a significant overlap, and when integrating strategies, it is essential to consider both sets of factors. By doing so, educators and schools can provide an environment that supports the talents and abilities of these learners, leading to their continued success and growth.

Additional criteria

Criteria that were taken into account when developing and describing development strategies:

1. **Forms of organization of development processes** - group (large, small) or individual.
2. **Form of work** - offline or online

Additional conditions

1.1. Institutional resources: Key elements such as dedicated facilities, professional development for educators, and a motivational system for all involved parties are foundational to this model.

The establishment of specialized learning spaces is vital, as these are designed to stimulate the intellectual growth of talented learners by fostering creativity, critical thinking, and problem-solving skills (Callahan & Hertberg-Davis, 2018). These environments should be equipped with the latest technology, a diverse array of learning materials, and designated areas for both individual and collaborative work, ensuring a conducive learning atmosphere with optimal lighting, comfortable furnishings, and a layout that promotes interaction.

Providing educators with continuous professional development opportunities is crucial for the effective teaching of talented learners (Hertberg-Davis & Callahan, 2008). Such opportunities should include training in gifted education, differentiated instruction, and curriculum development, enabling educators to stay abreast of the latest research and trends in the field and to network with other professionals.

The creation of a motivation system that sets clear goals, offers regular feedback, and recognizes achievements is essential for engaging all stakeholders (Subotnik et al., 2018). Encouraging active participation from students, educators, parents, and administrators through regular meetings, open communication, and collaborative decision-making opportunities is critical for the successful integration of this educational model.



1.2. Dual educator approach

Implementing a dual educator approach provides significant benefits in addressing the diverse and complex needs of talented learners (Bennathan & Boxall, 1996). This model facilitates a more nuanced and effective response to individual learner profiles, ensuring organized, structured, and predictable learning environments. Recognizing the unique strengths and challenges of each student, the presence of two educators allows for more personalized support and instruction, a practice underscored by recent studies as crucial for the optimal development of talented learners (Shea, 2019).

Moreover, the dual educator setup models positive adult interactions, which are instrumental in shaping the social and emotional growth of students. As evidenced by Elliott et al. (2001), learners benefit from witnessing constructive adult behaviors, learning to emulate respectful and cooperative interactions, thereby contributing to a nurturing classroom climate.

Additionally, this approach enhances the likelihood of talented learners forming meaningful connections with educators, a factor known to significantly influence academic motivation and well-being (Gkonou, 2021). The diversity in teacher-student dynamics afforded by two educators ensures a broader opportunity for positive relational experiences, enriching the overall educational experience for each learner.

Crucially, the dual educator model also addresses the need for psychological support for talented learners, who may face unique emotional challenges such as perfectionism and social isolation (Rinn, 2018). Regular engagement, counseling, and the fostering of an inclusive environment are essential strategies to support the emotional health and potential of talented learners (Dare & Nowicki, 2018).

1.3. Specialist preparedness

Central to this model is ensuring specialists are fully prepared, which involves a comprehensive understanding of their roles, a commitment to teamwork, and the acquisition of specific expertise.

For the successful implementation of this model, it's crucial that all involved understand their specific roles within the educational framework (Subotnik et al., 2018). This encompasses being aware of the program's goals, performance and behavior expectations, and their individual responsibilities. Achieving such clarity requires effective communication, thorough orientation, and continuous professional development and support.

The willingness to collaborate is fundamental within this educational setting (Subotnik et al., 2018). Effective teamwork not only enriches the educational experience by pooling diverse ideas and skills but also builds a supportive community that enhances both social and emotional learning. Establishing this collaborative environment necessitates a culture rooted in respect, trust, and open communication.

Possessing specialized knowledge and skills is essential for those working within this educational model (Hertberg-Davis & Callahan, 2013). Educators must be well-versed in the principles and practices of educating talented learners, including understanding their unique needs and employing strategies such as differentiated instruction and curriculum customization. Additionally, educators should embody and encourage critical thinking, creativity, and innovative problem-solving among their students.

This personalized educational approach is geared towards providing a dynamic and nurturing environment for talented learners to excel. The effectiveness of this model relies heavily on ensuring that educators are well-prepared and equipped to meet the unique demands of teaching talented learners, setting the stage for a learning environment where students can achieve their fullest potential.

2. Functioning methodology

INDIVIDUAL LEVEL

First strategy “Mentoring” (Olszewski-Kubilius, Subotnik, & Worrell, 2015)

Action: involve specialists from different professional fields, learners or parents to become mentors for talented learner

Purpose: interaction (experience share)

Functions:

1. **perform the functions of a supervisor**, leading the learner to a high professional level in working on personal extraordinary abilities and directions chosen by the learner himself;
2. **providing the communication** necessary for a talented learner.



Mentor's tasks:

1. Develop extraordinary abilities that will help the learner in a particular profession or professional direction.
2. Create tasks that are designed to help the learner develop specific skills related to their chosen profession or professional direction.
3. Provide feedback to the learner on their progress and offer guidance on how to improve their skills and abilities.
4. Help the learner set goals and create a plan for achieving those goals.
5. Encourage the learner to reflect on their experiences and use those reflections to make further progress in their development.

Implementation process

Offline Implementation	Online Implementation
Identify talented learners: utilize assessments to pinpoint learners with extraordinary abilities.	Identify mentors: find professionals and experienced individuals willing to mentor learners online.
Match learners with mentors: pair learners with mentors based on shared interests, skills, and developmental goals.	Establish communication: leverage digital platforms like video conferencing and emails for mentor-learner interactions.

Define goals and expectations: set clear objectives for the mentoring relationship, including focus areas and meeting schedules.	Assign online tasks: provide learners with digital tasks that align with their developmental goals and interests.
Monitor and support: ensure ongoing support for the mentoring pairs, offering resources and addressing any challenges.	Track progress online: utilize digital tools to monitor learners' advancements and facilitate mentor feedback.
Evaluate program effectiveness: regularly assess the mentoring program's impact on learners' growth and adjust as necessary.	

Second strategy “Consulting”

Action: to involve specialists - psychologists and social workers in work with the talented learners (Stephens, 2020)

Purpose: inter-psychological learning relationship organization

Functions:

1. **coordination of the individual work** of all those who are interested in the development of a talented learner;
2. **communication with the parents** of the talented learner;
3. **organization of psychological support.**

Specialist's tasks:

1. Providing informational and educational materials for parents to help them understand the unique needs and challenges of talented learner.
2. Organizing workshops or seminars for parents to learn effective strategies for supporting the emotional and social well-being of their talented learner.
3. Collaborating with the school staff and teachers to develop a coordinated approach for meeting the needs of talented learners.
4. Providing counseling and psychological support to talented learners to help them cope with the pressures and expectations that come with their unique abilities.
5. Developing individualized plans for each talented learner to support their personal growth and development, in collaboration with parents and teachers.
6. Providing ongoing communication and feedback to parents about their learner's progress and any challenges or concerns that arise during the development of their extraordinary abilities.

In addition to educating parents and providing emotional support at all stages of development, another important task of the specialists would be to provide counseling to the learners themselves when they face psychological problems. This could involve helping them to understand and cope with stress, anxiety, or other emotional challenges that may arise as they navigate their unique abilities and experiences. The psychologists and social workers could provide individual counseling sessions, group support, or other forms of therapeutic

interventions as needed to help the pupils maintain their emotional well-being and continue to develop their talents in a healthy and sustainable way.

Implementation process

Offline Implementation	Online Implementation
Identify specialists: assemble a team of experienced psychologists and social workers.	Online platform creation: develop a platform for collaboration and communication among specialists, learners, and parents.
Coordinate efforts: ensure all specialists work cohesively towards unified support goals.	Identify online specialists: recruit qualified specialists who can offer guidance via the online platform.
Parental communication: establish regular channels for updating parents on their child's development.	Work coordination: use the platform to ensure consistent support and goal alignment among specialists.
Provide support: offer comprehensive psychological assistance to learners.	Online support: deliver psychological support and counseling through digital means.
Adopt an individualized approach: tailor support to each learner's unique needs.	Individualized online approach: personalize support for each learner via the platform, considering their specific needs.
Monitor progress: continuously assess the development of talented learners and adjust strategies as needed.	Progress monitoring: use digital tools to track learners' progress and adjust support plans accordingly.
Evaluate program effectiveness: regularly assess the consulting program's impact and make necessary adjustments.	Platform evaluation: periodically review the online platform's effectiveness, gathering feedback for improvements.

Third strategy “**Individualization of learning**” (Wu et al., 2018)

Action number one: to **involve a teacher** who deeply knows and loves his subject, as well as trained to work with talented learner, to work with the talented learners

Action number two: to **integrate the opportunity** to study a particular subject with older learners into the program of a particular learner

Purpose: using flexible and individualized tasks, to develop the extraordinary abilities of the talented learner

Functions:

1. **assessment of the learner's** extraordinary abilities;
2. **improvement of ready-made educational materials**, focusing on the development of a particular talented learner;

3. **creating an emotionally safe environment** so that the talented learner can complete the assigned tasks;
4. **tracking pupil's progress**;
5. **involvement**, if necessary, of specialists from the first and second strategies.

ACTION NUMBER ONE

Teacher's tasks:

1. Identifying the talented learner's areas of interest and abilities
2. Adapting the curriculum and instructional materials to meet the learner's unique needs
3. Providing challenging and stimulating tasks that engage the learner 's curiosity and creativity
4. Offering personalized feedback and support to help the learner grow and develop
5. Collaborating with other teachers, specialists, and parents to provide a comprehensive and coordinated approach to the learner's education
6. Continuously assessing the learner's progress and adjusting instruction as needed to ensure continued growth and development

Implementation process

Offline Implementation	Online Implementation
Identify passionate and trained teachers.	Conduct digital classes using digital tools for content delivery.
Assess learner's abilities and tailor tasks.	Create a digital classroom with multimedia resources.
Adapt educational materials for individual needs.	Use online platforms for collaboration with the educational community.
Create a supportive learning environment.	
Monitor progress and adjust teaching strategies.	
Involve other specialists as needed.	

ACTION NUMBER TWO

Teacher's tasks:

1. Identifying the specific subject areas in which the learner has extraordinary abilities
2. Identifying opportunities for the learner to study with older learners in those subject areas
3. Working with the learner to develop a personalized plan for studying with older learners, including specific learning goals and objectives
4. Monitoring the learner's progress and adjusting the plan as needed to ensure continued growth and development
5. Providing emotional support and guidance to the learner as they navigate the challenges of studying with older learners
6. Collaborating with other teachers, specialists, and parents to provide a comprehensive and coordinated approach to the learner's education.

Implementation process

Offline Implementation	Online Implementation
Identify knowledgeable older peers as mentors.	Enroll the learner in online courses designed for older pupils.
Assess learner's abilities with the help of mentors.	Access digital libraries and research tools for independent study.
Design individualized tasks with mentors.	Engage with online communities for support and idea exchange.
Create a supportive environment for learning.	
Monitor progress and adjust learning plans.	
Involve other specialists as needed.	

GROUP LEVEL (SMALL GROUP)

Fourth strategy “**Special interest group organization**” (Renzulli et al., 2022)

Action: organization of a non-formal education system (in parallel to the formal one) throughout the educational institution, based on the creation of interest clubs

Purpose: to unite the talented learners into small groups (up to 10 people) according to interests and extraordinary abilities - into clubs with a single idea

Requirements: the presence of club members (minimum 5 people), the presence of a charter and a mentor



Functions:

1. **providing the necessary level of communication** and support for the talented learner;
2. **creating an emotionally safe environment** for presenting your ideas and opportunities;
3. **creation of a platform** for the implementation of ideas;
4. **developing a sense** of belonging and responsibility for club members.

Main tasks:

1. Identification of interests and extraordinary abilities of the talented learners and formation of small interest clubs (up to 10 people) according to their interests.
2. Identification of a mentor who is experienced and passionate about the subject area of the club to provide guidance and support to the members.
3. Development of a club charter that outlines the goals and objectives, responsibilities of the members, and the rules of conduct.

4. Creation of a safe and supportive environment where club members can share their ideas, experiences, and opportunities for personal and group development.
5. Provision of necessary resources and tools for the club members to implement their ideas and initiatives.
6. Promotion of a sense of belonging and responsibility among the club members by encouraging participation, collaboration, and leadership development.

Implementation process

Offline Implementation	Online Implementation
Assess interests: identify learners' talents and interests through surveys or interviews.	Digital clubs: establish clubs on digital platforms with meetings via video conferencing.
Form clubs: create interest-based clubs, each centered on a specific theme or activity.	Digital tools: use online collaboration tools for project development and resource sharing.
Select mentors: assign a knowledgeable mentor to each club to guide members.	Social media: utilize social media for club communication and showcasing projects.
Establish charter: develop a club charter outlining the mission, activities, and rules.	E-learning platforms: use learning management systems for structured activities and discussions.
Schedule activities: organize regular club meetings and project sessions.	Online resources: provide digital materials and tools for members to implement their ideas.
Ensure support: maintain a welcoming environment for open idea sharing.	Community engagement: foster participation and leadership through online forums and discussions.
Monitor progress: track the club's achievements and provide feedback.	Continuous feedback: use digital platforms for progress tracking and mentor feedback.

Fifth strategy “**Special corner organization**” (Laine, & Tirri, 2016)

Action: due to the regrouping of parallels, talented learners of the same age is distributed for classes in each academic subject into groups that take into account their similar abilities and interests

Goal: transformation of the curriculum so that each talented learner within the same class has an individual program for potential development

Functions:

1. assessment of the potential of each talented learner, **identification of individual abilities** in a particular area;
2. **formation of an individual program** - the division of subjects into profile and ordinary;
3. **grouping into a small group** (no more than 6) of talented learners from all parallels only for a specific subject to which they have a predisposition - this is an advanced group;

4. **the talented learner takes general education subjects in his class.**

Teacher's tasks:

1. The teacher needs to assess the potential of each talented learner, identify individual abilities in a particular area, and create a profile for each talented learner.
2. Based on the assessments, the teacher should create an individual program for each talented learner, dividing the subjects into profile and ordinary. The individual program should be focused on developing the talented learner's potential and should take into account their interests.
3. The teacher should manage the classroom to ensure that the talented learners are working on their individual programs and to provide support to the advanced group in the subject they have a predisposition for.
4. The teacher should track the progress of each talented learner and make adjustments to their individual program as necessary.
5. The teacher should communicate regularly with parents to keep them informed about their child's progress and to solicit feedback.
6. The teacher should collaborate with other teachers and specialists to ensure that the needs of each talented learner are being met and to provide support as needed.

Implementation process

Offline Implementation	Online Implementation
Assess pupil potential: use tests and observations to understand each pupil's unique abilities and interests.	Digital assessments: employ online tools to evaluate pupils' strengths and interests.
Develop individual programs: tailor educational plans to differentiate between specialized and general subjects.	Virtual programs: create personalized learning plans on the digital platform, covering both profile and general subjects.
Form advanced groups: organize small groups for advanced study in profile subjects, pulling pupils from various classes.	Online advanced groups: set up digital forums or groups for collaboration on specialized subjects.
Integrate general education: ensure pupils also engage in general education subjects with their regular classes.	Comprehensive online learning: provide access to general education materials alongside specialized content on the learning platform.

GROUP LEVEL (LARGE GROUP)

Sixth strategy “**Special skills development center organization**” (Kang, 2019)

Action: organization of a non-formal education system (in parallel to the formal one) throughout the educational institution, based on the creation of a center for the development of abilities for the talented learners

Purpose: to unite talented learners of all ages into a group within one educational institution

Requirements: the presence of the head of the center, psychological support and self-government of the center in the form of the talented learners

Functions:

1. providing the necessary level of communication and **psychological support** for the talented learners;
2. **development of a mentoring system** within the development center;
3. **creating an emotionally safe environment** for the implementation of projects.

Main tasks:

1. The first step is to establish the center for the development of abilities, which involves setting up the physical infrastructure, recruiting the head of the center, and appointing a team of psychologists and mentors to support the talented learners.
2. To identify the individual strengths and potential of the talented learners, assessment tests and interviews can be conducted.
3. A mentoring system should be set up within the development center, where each talented learner is assigned a mentor based on their interests and abilities. The mentor should provide guidance and support to the talented learner for the implementation of their projects.
4. The development center should create a supportive environment that encourages talented learners to pursue their interests and develop their skills through the implementation of various projects. The center can organize workshops, seminars, and training sessions to help the talented learners acquire the necessary skills to execute their projects.
5. The center should be run by the talented learners themselves. This helps in developing leadership skills, teamwork, and a sense of responsibility among the talented learners.
6. The development center should provide psychological support to the talented learners to help them deal with any emotional or psychological issues that may arise. This can be done through individual or group counseling sessions.



7. The development center can facilitate networking opportunities for the talented learners to connect with other talented learners and experts in their respective fields. This helps them to expand their knowledge and learn from others.

Implementation process

Offline Implementation	Online Implementation
Center setup: establish a physical center with designated leadership and necessary facilities.	Virtual center: create an online platform to serve as the virtual counterpart of the physical center.
Support system: implement a psychological support system within the center.	Online support: offer psychological counseling and support through digital channels.
Mentorship program: develop and initiate a mentorship program connecting learners with experienced mentors.	Digital mentorship: facilitate mentor-learner interactions and project guidance online.
Learner leadership: encourage self-governance and leadership roles among learners within the center.	Online governance: enable learners to take on leadership roles and manage projects through online forums and management tools.
Project environment: provide a safe and supportive environment for learners to work on and present their projects.	Virtual collaboration: utilize online tools and platforms for project collaboration and presentation.
Progress evaluation: regularly assess the learners' development and the impact of the center's activities.	Continuous feedback: use online platforms for monitoring progress, providing feedback, and adjusting projects as necessary.

Seventh strategy “**Special class organization**” (Tomlinson, 2012)

Action: transformation of the curriculum - by reducing the time to complete the compulsory program, part of the usual classes is replaced with classes that meet the cognitive needs of the talented learners

Purpose: to unite talented learners of the same age within the framework of one educational institution into a single class

Functions:

1. **assessment** of abilities;
2. **transformation of the curriculum** - reduction of training in the compulsory program and instead a program with a bias in any specifics is provided;
3. **integration and adaptation of a pupil** in a class with talented learners;
4. if necessary, the organization of **psychological support**.

Teacher's tasks:

1. Assessing the abilities of each learner to determine the areas in which they excel and those that require additional support.
2. Developing and implementing a personalized program for each learner that aligns with their strengths and interests.
3. Providing support and guidance to learners as they integrate into a class with other talented learners.
4. Monitoring and evaluating the progress of each learner to identify areas of growth and further development.
5. Collaborating with other teachers, administrators, and support staff to ensure that learners receive the resources and support they need to succeed.

Implementation process

Offline Implementation	Online Implementation
Assessment of abilities: conduct thorough evaluations to identify talented learners based on diverse abilities.	Virtual assessments: utilize online tools and assessments to identify talented learners' strengths and needs.
Curriculum transformation: modify the curriculum to include advanced classes tailored to talented learners' interests.	Customized online curriculum: develop specialized online modules and courses that cater to talented learners' cognitive needs.
Integration of learners: group talented learners into a specialized class, ensuring a conducive learning environment.	Digital class integration: create an inclusive virtual classroom environment that fosters collaboration among talented learners.
Psychological support: provide in-person counseling and support services to assist learners in their adaptation.	Online psychological support: offer virtual counseling sessions and online support groups for talented learners.
	Interactive learning platforms: use digital tools and platforms to facilitate interactive learning and project collaboration.
	Parent and teacher collaboration: leverage online communication tools for continuous collaboration and feedback among educators and parents.
	Continuous online monitoring: implement digital tracking and feedback mechanisms to monitor learners' progress and adjust the program as needed.

This subchapter has delineated seven pivotal strategies within the "Personalized Education Model for Talented Learners," each tailored to address the diverse requirements and capabilities of talented learners in educational settings. These strategies, ranging from "Mentoring" to "Special Class

Organization," underscore the necessity for customized learning paths, comprehensive support mechanisms, and collaborative environments conducive to both academic achievement and personal development.

Moreover, the focus on psychological support, mentorship, and communal engagement within these strategies highlights a comprehensive educational approach, addressing the intellectual, emotional, and social dimensions of learning for talented individuals.

It is clear that the effective deployment of these strategies necessitates a concerted effort from educators, administrators, mentors, and the learners themselves.

3. Views of learners

This information explores the learners' perceptions of the multifaceted strategies delineated in the "Personalized Education Model for Talented Learners." Grasping how these varied methodologies – encompassing Mentoring, Consulting, Special Skills Development Center Organization, among others – affect the educational experiences of learners is crucial for the enhancement and customization of these strategies to better cater to the distinct needs of talented individuals. Actively engaging with and valuing learners' insights empowers them as integral contributors to their educational pathway, fostering a sense of autonomy and ownership in their learning process.



3.1. Tailored and collaborative learning environments

Across the spectrum of seven strategies, learners' feedback consistently highlights the value placed on tailored support within mainstream educational frameworks and the opportunities for collaborative learning within specialized settings. These strategies, which include Special Corner Organization and Special Class Organization among others, offer a diverse range of learning experiences that address the varied needs and preferences of talented learners.

Through strategies like Special Corner Organization, learners benefit from personalized attention and support within the conventional classroom setting, enabling them to explore their interests and receive specialized guidance while still engaging with their peers. This fosters personal growth, adaptation skills, and necessary psychological support (Tomlinson, 2013; Kamarulzaman, 2017).

On the other hand, strategies such as Special Class Organization and Special Skills Development Center Organization establish distinct, specialized environments where talented learners can immerse themselves in their interests alongside peers with similar inclinations. These environments promote collaborative projects, peer learning, and a communal sense among talented learners (Clobert & Gauvrit, 2021).

3.2. Effects of grouping on talented learner

Grouping strategies play a pivotal role in the development of talented learners. Understanding the cognitive, attitudinal, and socio-affective effects of grouping provides valuable insights into their educational experiences.

Cognitive effects

According to studies, including research by Steenbergen-Hu et al. (2016), grouping has a positive impact on the cognitive development of high-potential pupils. Grouping within and between classes of varying levels has led to improved progress, with some evidence suggesting that grouping between classes of different levels may offer more significant benefits.

Attitudinal effects

Grouping by ability around specific subjects has been associated with improved attitudes toward those subjects, although its impact on overall attitudes toward school varies (Gubbels, Segers, & Verhoeven, 2014). Gender differences have also been observed, with boys showing more positive engagement with school when grouped by ability.

Socio-affective effects

While grouping can have positive cognitive effects, some high-potential learners in highly selective groups have reported social challenges, including isolation and a competitive climate (Mulkey et al., 2005). The impact on self-esteem can vary by gender and initial academic performance.

3.3. Collecting learners' feedback for continuous improvement (Garn, & Jolly, 2014; Prior, 2011; Yuen, et al., 2010).

To ensure the continuous improvement and effectiveness of strategies aimed at developing talented learners, it is crucial to adopt systematic feedback collection practices within educational institutions. Here are some recommended approaches for educational institutions to consider:

Establish a feedback collection plan

Educational institutions should develop a systematic plan for gathering feedback from talented learners at regular intervals. This plan should outline the objectives, methods, and timeline for collecting feedback. By establishing clear goals and timelines, institutions can ensure that feedback collection remains a consistent and integral part of their educational practices.

Choose appropriate feedback methods

Institutions should carefully select methods that are suitable for gathering meaningful and comprehensive feedback from talented learners. Consider a combination of qualitative and quantitative approaches to gather diverse perspectives. Some common methods include:

- **Surveys:** Design surveys that are age-appropriate, clear, and concise to facilitate effective communication and ease of response.
- **Interviews:** Conduct one-on-one or group interviews to delve deeper into learners' experiences and insights.
- **Focus groups:** Organize focus group discussions to encourage open dialogue and the exploration of common themes and concerns.
- **Reflective journals:** Encourage learners to maintain reflective journals, providing a platform for them to express their thoughts and experiences.

Engage specialists in feedback collection

Educational institutions may benefit from collaborating with specialists such as psychologists, educational researchers, or trained educators. These experts can play a key role in facilitating the feedback collection process. Their expertise ensures the use of appropriate methods and provides guidance in interpreting the feedback, leading to more meaningful insights.

Create a safe and supportive environment

Foster an environment within the institution where talented learners feel comfortable and encouraged to share their thoughts openly. Emphasize the confidentiality and anonymity of their responses, if applicable, to promote honest and genuine feedback. By creating a safe and supportive atmosphere, institutions can encourage learners to express their opinions without fear of judgment.

Design feedback instruments

Institutions should invest in the development of well-structured and relevant feedback instruments. These instruments should capture specific aspects of learners' experiences. Ensure that the instruments remain age-appropriate, clear, and concise to facilitate effective communication and ease of response. Thoughtful instrument design enhances the quality of the feedback received.

Implement feedback collection

Administer the selected feedback methods according to the established plan. Ensure that talented learners have sufficient time and support to provide their feedback. Consider different modalities such as online surveys, face-to-face interviews, or group discussions to accommodate diverse preferences. By offering various feedback collection options, institutions can cater to individual learner needs.

Analyze and interpret feedback

Thoroughly analyze the collected feedback, looking for common themes, patterns, and insights. Consider both the quantitative data and the qualitative responses to gain a

comprehensive understanding of learners' perspectives. Robust analysis is essential for extracting meaningful insights from the collected data.

Share and discuss findings

Educational institutions should communicate the feedback findings with relevant stakeholders, including educators and parents. Engage in meaningful discussions to gain different perspectives and collaboratively identify areas for improvement and potential adjustments to strategies. Involving stakeholders ensures that feedback leads to actionable changes.

Implement adjustments and continuous improvement

Based on the feedback findings, make informed adjustments to the strategies for developing talented learners. Continuously monitor the impact of these adjustments and strive for ongoing improvement. By being responsive to feedback, institutions can enhance the educational experiences of talented learners over time.

Provide feedback loop to learners

Close the feedback loop by sharing the outcomes of the feedback collection process with talented learners. Inform them of the adjustments made and how their feedback has contributed to improving their educational experiences. This reinforces their role as active participants in the process and encourages further engagement. Transparency and communication empower learners and foster a sense of ownership over their educational journey.

By implementing this systematic feedback collection process, educators can gather valuable insights and perspectives from talented learners.

4. Views of educators

Educators are pivotal in the journey of developing talented learners, serving not just as instructors but as integral participants in the process. This chapter aims to delve into educators' viewpoints, exploring their insights on the strategies, participants, methodologies, and outcomes of talent development. Furthermore, it seeks to uncover the impact of this involvement on educators themselves, examining potential psychological effects, risks, and the role of continuous self-improvement in this unique educational landscape.



4.1. Understanding the process: educators' insights

Educators' insights provide a window into their understanding of the talent development process. They share their thoughts on the strategies employed, the diverse participants involved,

the teaching methods, and the expected outcomes (Chen, & Chen, 2020). By tapping into educators' perspectives, we gain a clearer picture of the dynamic educational landscape.

Effective methods for collecting educators' insights

Gathering educators' insights requires careful planning and the use of effective methods. Educational institutions can employ several strategies to collect valuable input from educators who are actively involved in the talent development process:

1. **Surveys:** Designing comprehensive surveys that specifically target educators can be an efficient way to collect their perspectives. These surveys should encompass questions related to their experiences, observations, and recommendations concerning the talent development strategies in place. Ensuring that surveys are well-structured and easy to navigate enhances response rates and the quality of feedback.
2. **Semi-structured interviews:** Conducting semi-structured interviews with educators allows for in-depth exploration of their views and experiences. Interviewers can probe deeper into their thoughts, encouraging educators to express nuanced insights. These interviews should focus on areas such as teaching methods, challenges faced, and perceived outcomes.
3. **Focus groups:** Organizing focus group discussions with educators from various backgrounds fosters dynamic conversations. These discussions can unearth collective opinions and common themes that may not surface through individual surveys or interviews. Carefully moderated focus groups create an environment where educators can engage in open dialogue and share their perspectives.
4. **Anonymous feedback channels:** Establishing anonymous feedback channels, such as suggestion boxes or online platforms, can encourage educators to share candid opinions without fear of repercussions. Anonymity can lead to more honest and unfiltered feedback, providing a different dimension to their insights.
5. **Peer observations and peer-to-peer feedback:** Encouraging educators to engage in peer observations and feedback sessions can offer valuable perspectives. Educators can learn from each other's experiences and gain insights into different teaching methods and strategies that are effective in talent development.
6. **Collaborative workshops and professional development:** Hosting collaborative workshops and providing ongoing professional development opportunities can create spaces for educators to exchange ideas and experiences. These platforms encourage them to explore innovative methods and share their insights for collective growth.

These methods should be integrated into a comprehensive approach for collecting educators' insights. The data gathered through these strategies not only provides a clearer understanding of the talent development process but also empowers educators to actively contribute to the improvement of strategies and practices.

4.2. The educator's journey: psychological effects

Teaching talented learners isn't without its psychological implications (Woolfolk, & Shaughnessy, 2004). Educators may experience various effects, each with its own importance:

- **Heightened motivation:** Educators often find their motivation levels soar as they witness the progress and achievements of their talented learners. This heightened motivation fuels their commitment to nurturing and challenging these learners, ultimately leading to better outcomes.
- **Deeper engagement:** Engaging with talented learners can be intellectually stimulating for educators. The depth and complexity of discussions and projects lead to educators becoming more deeply engaged in their teaching, which can result in a more fulfilling teaching experience.
- **Increased sense of purpose:** Educators often express a heightened sense of purpose when working with talented learners. They recognize the unique role they play in shaping these learners' futures, which can be incredibly rewarding and fulfilling.

Conversely, they may also encounter challenges such as increased stress or pressure. This section explores these psychological dimensions, shedding light on the complex interplay between educators' well-being and talent development.

4.3. Navigating risks and seeking support

Talent learner's education can be resource-intensive, and educators might face the risk of burnout or exhaustion due to the demands of this process. Understanding these risks is crucial, and educators, as well as institutions, need strategies and support mechanisms to mitigate these challenges (Ferrari, Cachia, & Punie, 2009). We explore the potential pitfalls:

Burnout: The demands of nurturing talented learners can lead to burnout. Educators may become physically and emotionally exhausted (Garwood, 2023). To address this, institutions can implement the following strategies and mechanisms:

- **Workload management:** Developing workload management systems that distribute tasks evenly and prevent excessive work hours can help alleviate burnout. This includes setting reasonable expectations for educators and providing them with tools to manage their work efficiently.
- **Counseling services:** Offering access to counseling services can provide educators with a safe space to discuss stressors, seek emotional support, and learn stress management techniques.
- **Sabbatical leaves:** Providing opportunities for educators to take sabbatical leaves allows them to recharge and pursue professional development or personal interests. This break from their regular responsibilities can be rejuvenating.

Resource allocation: Allocating resources efficiently can be challenging (Hunsaker, & Shepherd, 2023). It's essential to balance resources, ensuring that they are used effectively to support talented learners. This involves continuous monitoring and optimization. Strategies and mechanisms include:

- **Resource audits:** Conducting regular resource audits to assess the allocation of funds, materials, and personnel. This helps identify areas where resources may be underutilized or misallocated.

- **Professional development:** Investing in ongoing professional development for educators ensures that they have the necessary skills and knowledge to make the best use of available resources.
- **Data-driven decision-making:** Using data analytics to inform resource allocation decisions can lead to more efficient utilization. Institutions can identify areas of improvement and direct resources accordingly.

Educator isolation: Educators working with talented learners might feel isolated due to the specialized nature of their work (Floyd, McGinnis, & Grantham, 2021). Peer support networks and professional development opportunities can counteract this isolation. Strategies and mechanisms include:

- **Peer support networks:** Establishing peer support networks where educators can connect, share experiences, and exchange ideas. Regular meetings or online forums can facilitate collaboration and reduce feelings of isolation.
- **Mentorship programs:** Implementing mentorship programs where experienced educators guide newcomers can create a sense of belonging and provide a valuable source of support.
- **Collaborative workshops:** Organizing collaborative workshops and training sessions that bring educators together for knowledge sharing and collaboration. These workshops foster a sense of community.

By understanding these risks and implementing strategies to control, reduce, or cope with them, institutions can create a supportive environment for educators. This proactive approach not only safeguards educators' well-being but also enhances the overall effectiveness of talent development initiatives.

4.4. The educator as a continuous learner

In the quest to educate talented learners, educators often find themselves in a unique and dynamic position. Conventional teaching methods may not suffice, prompting educators to continuously evolve and adapt (Mofield, 2020). This chapter delves into how educators become active participants in their own learning journey, effectively becoming part of the learning process alongside their talented learners:

1. **Identification of needs:** the journey begins with educators recognizing the unique needs, abilities, and learning styles of their talented learners. This realization underscores that standard teaching methods may not be effective in fully harnessing the potential of these learners. Identifying these needs serves as a crucial starting point in the educator's path.
2. **Professional development:** To address these identified needs, educators embark on a deliberate journey of professional development. This phase involves seeking out specialized training, workshops, and resources designed to equip educators with the knowledge and skills necessary to better serve their talented learners. It also emphasizes the significance of staying informed about the latest advancements in educational theory and practice, as well as gaining insights from experts in the field.

approach that addresses the specific requirements of talented learners in the educational setting.

Counseling and psychological support are integral components of the specialists' role. They offer guidance and assistance to talented learners in navigating the pressures and expectations associated with their exceptional abilities. In addition, these specialists develop individualized plans in partnership with parents and teachers to foster the personal growth and development of talented learners. Ongoing communication and feedback provide parents with valuable insights into their child's progress, allowing for early intervention and addressing any challenges or concerns that may arise.

Furthermore, specialists are responsible for offering counseling services directly to talented learners, assisting them in managing psychological difficulties that may emerge. This includes helping them understand and cope with stress, anxiety, and other emotional challenges associated with their unique abilities. Individual counseling sessions, group support, and other therapeutic interventions are employed to promote the emotional well-being of talented learners, enabling them to thrive in a healthy and sustainable manner.

The involvement of parents in the education of talented learners has a significant impact. It creates a strong support system that reinforces the development of their children's talents. By working collaboratively with specialists, parents gain knowledge and skills to effectively nurture their child's abilities. This involvement enhances the overall well-being and success of talented learners, fostering a positive learning environment both at home and in school.

The involvement of specialists such as psychologists and social workers, along with active participation from parents, is vital for the education of talented learners. The collaborative efforts of these stakeholders contribute to the holistic development of talented learners, ensuring their unique needs are met and their talents are nurtured. Through effective communication, support, and guidance, parents play a crucial role in fostering the growth and success of their talented children.

6. Identifying suitable candidates for working with talented learners

A specialist who works with talented learners should possess a range of skills, competencies, and characteristics that enable them to understand and meet the needs of these unique learners. Here are some of the skills, competencies, and characteristics that are important (Crutchfield, & Inman, 2021; Farah, & Johnsen, 2021):

1. Strong knowledge of the subject area: A specialist who works with talented learners should have a deep knowledge of the subject area in which they are working. They should be able to provide challenging and enriching learning opportunities that go beyond the standard curriculum.



2. **Understanding of giftedness:** The specialist should have a solid understanding of what it means to be talented learner. This includes knowledge of the characteristics and traits that talented learners often possess, as well as an awareness of the challenges that these talented learners can face.
3. **Flexibility and adaptability:** The specialist should be able to work flexibly and adapt to the needs of each individual talented learner. They should be able to modify their teaching methods and strategies to meet the unique needs of each learner.
4. **Creativity and innovation:** The specialist should be able to design and implement creative and innovative learning experiences that challenge and engage talented learners. They should be able to think outside the box and provide opportunities that are tailored to the individual needs of each learner.
5. **Strong interpersonal skills:** The specialist should be able to build strong relationships with talented learners, as well as their families and other educators. They should be able to communicate effectively, empathize with their talented learners, and provide emotional support when needed.
6. **Patience and persistence:** Working with talented learners can be challenging, and the specialist should have the patience and persistence to work through these challenges. They should be able to remain positive and focused even when the learner is struggling or facing difficulties.
7. **Lifelong learning:** The specialist should be committed to lifelong learning and professional development. They should be able to stay up-to-date with the latest research and best practices in talented learners' education, and continually seek out new ways to improve their teaching and support for talented learners.

Overall, the specialist who works with talented learners should be passionate, empathetic, and committed to helping these unique pupils achieve their full potential. They should possess a range of skills and competencies that enable them to design and implement effective learning experiences that are tailored to the individual needs of each talented learner.

Conclusion

The exploration of the "Kangaroo Methodology" offers a comprehensive and insightful approach to nurturing talented learners, emphasizing the importance of personalized education, collaborative environments, and the active participation of various stakeholders. This methodology underscores the necessity of understanding and addressing the unique needs of talented learners, fostering an educational landscape where their potential can be fully realized and nurtured.

At the heart of the Kangaroo Methodology is the acknowledgment of the diverse talents and abilities of learners, necessitating specialized strategies that range from mentoring and consulting to the establishment of specialized classes and centers for skill development. These strategies, thoughtfully integrated within the educational framework, provide talented learners with opportunities to explore their interests, engage in collaborative learning, and receive the support needed to overcome challenges and excel.

The methodology also highlights the crucial role of educators, who are not merely instructors but partners in the educational journey of talented learners. Through continuous professional development, reflection, and adaptation, educators evolve alongside their learners, ensuring that the educational experience remains dynamic, responsive, and enriching.

Furthermore, the inclusion of family-based education and the collaboration with specialists such as psychologists and social workers underscore the holistic approach of the Kangaroo Methodology. This collaborative effort ensures that talented learners receive the comprehensive support necessary for their all-around development, encompassing academic, emotional, and social aspects.

The Kangaroo Methodology presents a visionary blueprint for the education of talented learners. It calls for a unified effort among educators, families, and specialists to create an enabling environment that celebrates and nurtures the unique gifts of each learner. As we embrace and implement this methodology, we pave the way for a future where talented individuals are empowered to reach their fullest potential, contributing their unique talents and abilities to the enrichment of society.

References:

1. Bakar, A. Y. A. (2020). Effects of character education program on gifted and talented students' self-esteem. *Journal of Gifted Education and Creativity*, 7(3), 115-120.
2. Bennathan, M., & Boxall, M. (1996). *Effective Intervention in Primary Schools*. London: David Fulton Publishers.
3. Callahan, C.M., & Hertberg-Davis, H.L. (2018). *Fundamentals of gifted education: Considering multiple perspectives*. Routledge.
4. Chan, S., & Yuen, M. (2015). Teachers' beliefs and practices for nurturing creativity in students: Perspectives from teachers of gifted students in Hong Kong. *Gifted Education International*, vol. 31 no. 3, 200-213.
5. Chen, W. R., & Chen, M. F. (2020). Practice and evaluation of enrichment programs for the gifted and talented learners. *Gifted Education International*, 36(2), 108-129.
6. Clobert, N., & Gauvrit, N. (2021). *Psychologie du haut potentiel: comprendre, identifier, accompagner*. De Boeck Supérieur.
7. Crutchfield, K. & Inman, T.F. (2021). Teacher preparation and gifted education. In: *Critical issues and practices in gifted education* (J. Plucker, C.Callahan, eds.), New York: Routledge.
8. Dare, L., & Nowicki, E. (2018). Strategies for inclusion: Learning from students' perspectives on acceleration in inclusive education. *Teaching and teacher education*, 69. pp. 243-252.
9. Elliott, S. N., Malecki, C. K., & Demaray, M. K. (2001). New directions in social skills assessment and intervention for elementary and middle school students. *Exceptionality*, 9(1-2). pp. 19-32.
10. Farah, Y.N. & Johnsen, S.K. (2021). *Classroom management for gifted and twice-exceptional students using functional behavior assessment: A step-by-step professional learning program for teachers*. New York: Routledge.
11. Ferrari, A., Cachia, R., & Punie, Y. (2009). Innovation and creativity in education and training in the EU member states: Fostering creative learning and supporting innovative teaching. JRC Technical Note, 52374, 64.
12. Flum, J.P. & Kramer, H.E., (2016). "Gifted Children: A Review of the Literature". *Journal of Pediatric Nursing*, vol. 31, issue 1, pages 26-32 (2016).
13. Floyd, E. F., McGinnis, J. L., & Grantham, T. C. (2021). Gifted education in rural environments. In *Special populations in gifted education* (pp. 27-46). Routledge.
14. Gagné F. (2018). Academic talent development: Theory and best practices. In: *APA handbook of giftedness and talent* (S.I. Pfeiffer, E. Shaunessy-Dedrick, M. Foley-Nicpon, eds.). American Psychological Association. pp. 163-183.
15. Gagné, S. & Smith, L. F., (2020). "What is talent development? Mapping out a new field based on a systematic literature review". *High Ability Studies*, volume 31, issue 1, pages 3-32.

16. Garn, A. C., & Jolly, J. L. (2014). High ability students' voice on learning motivation. *Journal of Advanced Academics*, 25(1), 7–24. <https://doi.org/10.1177/1932202x13513262>
17. Garwood, J. D. (2023). Special educator burnout and fidelity in implementing behavior support plans: A call to action. *Journal of Emotional and Behavioral Disorders*, 31(2), 84-96.
18. Gkonou, C. (2021). Teacher-Learner Relationships in Psychology. In: *The Routledge handbook of the psychology of language learning and teaching*. pp. 275-284.
19. Gubbels, J., Segers, E., & Verhoeven, L. (2014). Cognitive, socioemotional, and attitudinal effects of a triarchic enrichment program for gifted children. *Journal for the Education of the Gifted*, 37(4), 378-397.
20. Gross, M.U., & Smith, S.R. (2021). Put them together and see how they learn! Ability grouping and acceleration effects on the self-esteem of academically gifted high school students. In: *Handbook of Giftedness and Talent Development in the Asia-Pacific* (S.R. Smith, ed.). Springer. pp. 377-403.
21. Hertberg-Davis, H.L., & Callahan, C.M. (2013). Defensible curriculum for gifted students. In: *Fundamentals of gifted education: Considering multiple perspectives*. pp. 199-211.
22. Hunsaker, S. L., & Shepherd, P. (2023). Policy perspectives on gifted education. In *Identification* (pp. 121-142). Routledge.
23. Kamarulzaman, M., Azman, H., & Zahidi, A. (2017). Differentiated instruction strategies in English language teaching for gifted students. *Journal of Applied Environmental and Biological Sciences*, 7(1), 78-90.
24. Kang, D. Y. (2019). Past, present, and future of gifted science education in Korea: a historical perspective. *Asia-Pacific Science Education*, 5(1), 12.
25. Karen, M. P., (2010). "Developing Independent Thinking and Learning for Gifted Students". *Journal: Gifted Child Today*, Page: 24-31
26. Laine, S., & Tirri, K. (2016). How Finnish elementary school teachers meet the needs of their gifted students. *High ability studies*, 27(2). pp. 149-164.
27. Laine, S., Kuusisto, E., & Tirri, K. (2016). Finnish teachers' conceptions of giftedness. *Journal for the Education of the Gifted*, 39(2), 151-167.
28. Lavoie, C., Couture, C., Bégin, J.Y., and Massé, L. (2017). The differentiated impact of Kangaroo Class programmes in Quebec primary schools: examining behavioural improvements in relation to student characteristics. *Emotional and Behavioural Difficulties*, 22(3). pp. 275-289. <https://doi:10.1080/13632752.2017.1335118>
29. Lee, S. Y., Olszewski-Kubilius, P., Makel, M. C., & Putallaz, M. (2015). Gifted students' perceptions of an accelerated summer program and social support. *Gifted Child Quarterly*, 59(4), 265-282.
30. Little, C. A. (2012). Curriculum as motivation for gifted students. *Psychology in the Schools*, 49(7), 695-705.
31. Mofield, E. L. (2020). Benefits and barriers to collaboration and co-teaching: Examining perspectives of gifted education teachers and general education teachers. *Gifted Child Today*, 43(1), 20-33.
32. Moon, S. M., & Brighton, C. M., (2011). "Discovering optimal learning strategies for gifted students through an artificial neural network approach". *Journal: Gifted Child Quarterly*, pages: 168-178.
33. Mulkey, L. M., Catsambis, S., Steelman, L. C., & Crain, R. L. (2005). The long-term effects of ability grouping in mathematics: A national investigation. *Social Psychology of Education*, 8, 137-177.
34. Neihart, M., (2021). *The social and emotional development of gifted children: What do we know?* New York: Routledge.
35. Niu, W., (2017). "Self-esteem of gifted students: A review of empirical literature". *Journal: Gifted Child Quarterly*, volume: 61, issue: 3, pages: 213-226.

36. Oliveira, G. P. (2016). Gifted Children: Characteristics and Identification, published in Journal of Education and Practice, Vol. 7, No. 1, 2016, pp. 1-6.
37. Olszewski-Kubilius, P., Subotnik, R. F., & Worrell, F. C. (2015). Conceptualizations of giftedness and the development of talent: Implications for counselors. Journal of counseling & development, 93(2), 143-152.
38. Prior, S. (2011). Student voice: what do students who are intellectually gifted say they experience and need in the inclusive classroom? Gifted and Talented International, 26 (1, 2), 121–130. <https://doi:10.1080/15332276.2011.11673596>
39. Reis, S. M., Renzulli, S. J., & Renzulli, J. S. (2021). Enrichment and gifted education pedagogy to develop talents, gifts, and creative productivity. Education Sciences, 11(10), 615.
40. Renzulli, J. (2014). The schoolwide enrichment model: a comprehensive plan for the development of talents and giftedness. Revista Educação Especial, 27(50), 539-562.
41. Renzulli, J., Beghetto, R., Brandon, L., & Karwowski, M. (2022). Development of an instrument to measure opportunities for imagination, creativity, and innovation (ICI) in schools. Gifted Education International, 38(2), 174-193.
42. Reynolds, S. E. (2018). Gifted Children's Advanced Verbal and Abstract Reasoning Skills: Development and Challenges. Journal of Child Development Research, Volume: 8, Issue: 5, Page: 17-24
43. Robinson, A., Shore, B. M., & Enersen, D. L. (2015). Consulting on the nature and needs of the gifted and talented: A new model for understanding giftedness and advocating for programs and services. Journal of Advanced Academics. Vol. 26, No. 1, pp. 5-23
44. Robinson, N. M., (2015). "Social-Emotional Needs of the Gifted: Strategies for Effective Differentiation". Journal: Journal for the Education of the Gifted, pages: 30-49.
45. Rogers, K.B. (2020). Re-forming gifted education: matching the program to the child. Goshen: Gifted Unlimited.
46. Rinn, A. N. (2018). Social and emotional considerations for gifted students. In: APA handbook of giftedness and talent (S.I. Pfeiffer, E. Shaunessy-Dedrick, & M. Foley-Nicpon, eds.) American Psychological Association. pp. 453–464. <https://doi.org/10.1037/0000038-029>
47. Sánchez-Escobedo, P.A., Valdés-Cuervo, A.A., Contreras-Olivera, G.A., García-Vázquez, F.I., & Durón-Ramos, M.F. (2020). Mexican teachers' knowledge about gifted children: Relation to teacher teaching experience and training. Sustainability, 12 (11). pp. 1-9.
48. Shea, R. (2019). The connection between learning and achievement of gifted and talented (GATE) high school students using a personalized learning framework from the perspective of high school teachers (Doctoral dissertation, Brandman University).
49. Steenbergen-Hu, S., Makel, M. C., & Olszewski-Kubilius, P. (2016). What one hundred years of research says about the effects of ability grouping and acceleration on K–12 students' academic achievement: Findings of two second-order meta-analyses. Review of Educational Research, 86(4), 849-899.
50. Subotnik, R. F., Olszewski-Kubilius, P., & Worrell, F. C. (2011). "Rethinking Giftedness and Gifted Education: A Proposed Direction Forward Based on Psychological Science". Journal: Psychological Science in the Public Interest, vol.12, issue 1, pages: 3-54.
51. Subotnik, R. F., Olszewski-Kubilius, P., & Worrell, F. C. (2018). Talent development as the most promising focus of giftedness and gifted education. In: APA handbook of giftedness and talent (S.I. Pfeiffer, E. Shaunessy-Dedrick, & M. Foley-Nicpon, eds.) American Psychological Association. pp. 231–245. <https://doi.org/10.1037/0000038-015>.
52. Tomlinson, C. A. (2012). Differentiated instruction. In Fundamentals of gifted education (pp. 307-320). Routledge.

53. Tomlinson, C.A. (2017), Differentiated instruction. In: Fundamentals of gifted education (C.M. Callahan and H.L. Hertberg-Davis, eds.). New York: Routledge. pp. 307-320.
54. VanTassel-Baska, J. and Baska, A., (2021). Curriculum planning and instructional design for gifted learners. New York: Routledge.
55. Vialle, W., Heaven, P. C., Ciarrochi, J., & Heaven, R., (2007). "A three-cohort longitudinal study of intellectual and motivational ability in gifted students". Journal: Gifted Child Quarterly, pages: 7-21
56. Wu, M., Siswanto, I., Suyanto, W., Sampurno, Y.G. and Tan, W., (2018). Creative thinking curriculum infusion for students of teachers' education program. Jurnal pendidikan teknologi dan kejuruan, 24(1), pp.1-12.
57. Yuen, M., Gysbers, N. C., Chan, R. M., Lau, P. S., & Shea, P. M. (2010). Talent development, work habits, and career exploration of Chinese middle-school adolescents: Development of the career and talent development self-efficacy scale. High Ability Studies, 21(1), 47-62.
58. Yusof, A., Buang, N. A., & Mohamed, W. A. W., (2017). Talent Identification and Development Program for Gifted and Talented Students: A Review of Literature and Best Practices. Malaysian Journal of Learning and Instruction, 14(2), pp. 1-34.