

ENHANCING PRESCHOOL EDUCATION: EVIDENCE-BASED STRATEGIES AND METHODS FOR IMPROVING THE TEACHING PROCESS

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Abstract: This study investigates pedagogical methods and techniques that enhance the quality of instructional processes in preschool education. In an era characterized by rapid technological and societal change, it is imperative that educators continuously adapt their teaching practices to address the diverse learning needs of children. By focusing on a range of instructional strategies such as active learning, collaborative activities, and differentiated instruction, this research evaluates the influence of teaching methods on learner engagement, performance, and overall developmental outcomes. Particular attention is given to the necessity of tailoring instructional approaches to accommodate varying learning styles and individual differences among preschool children. The integration of technology within the classroom, highlighting its potential to foster motivation, sustain interest, and enrich the learning experience, is also explored. Beyond technological integration, the study emphasizes the creation of supportive and inclusive learning environments that encourage independence, creativity, and critical thinking. It further examines how diverse teaching strategies affects children with differing learning paces, identifying practices that effectively promote both cognitive and social development. Through the combination of traditional pedagogical approaches with contemporary methodologies, this research seeks to provide insights into improving instructional quality and formulating more contextually appropriate strategies for early childhood education. The findings aim to support educators in selecting and implementing effective teaching methods that respond to the developmental characteristics and needs of preschool learners. Ultimately, the study underscores the importance of pedagogical adaptability and innovation in achieving positive educational outcomes. By critically analyzing instructional practices and their effects, it seeks to identify the most effective strategies, acknowledge the challenges of implementation, and contribute to the ongoing refinement of preschool education. By combining traditional pedagogical practices with contemporary approaches, the research aims to identify the most effective methods for fostering both cognitive and social development in preschool settings. The findings are intended to assist educators in selecting and implementing strategies that best correspond to the needs of children. Ultimately, this study underscores the necessity of adapting teaching methods to diverse learning profiles in order to achieve positive educational outcomes and to refine preschool teaching practices.

Keywords: improvement, teaching, methods, children, play, activities, nature.

1. INTRODUCTION

The present study addresses the application of discussion-based learning and group work methods, which have become increasingly prominent in contemporary pedagogy. Particular attention is directed toward communication strategies and techniques that foster expressive skills, their modes of implementation, and the phases of instruction in which they are most effectively applied.

Central to this research is the examination of student-centered approaches, reflecting the understanding that the use of diverse methods and techniques is closely linked to the way in which learners acquire, process, and retain knowledge. In the context of accelerated technological and societal transformations, educators face the challenge of having to continuously adapt instructional strategies to meet the heterogeneous needs of children. This study therefore investigates how active learning, collaborative tasks, and technology integration affect learner engagement, performance, and overall development. By emphasizing the adaptation of teaching practices to different learning styles, the paper seeks to highlight the conditions that contribute to effective instruction and positive learning outcomes. The paper also underscores the role of innovative methods in creating supportive and stimulating learning environments that encourage independence, critical thinking, and creativity. Such environments are crucial in preschool education, where children learn not only through repetition but also through exploration, interaction, and experiential activities. At this stage, teaching practices influence not only cognitive development but also social and emotional growth, laying the foundation for future learning trajectories. Well-established approaches such as learning through play, the Montessori method, the Reggio Emilia philosophy, storytelling, and cooperative learning are discussed for their potential to enhance self-expression, problem-solving, and interpersonal skills. Effective methods are characterized by flexibility and adaptability, enabling children to progress at their own pace and achieve their developmental potential. A balanced combination of traditional and contemporary strategies is thus essential

for enriching the preschool learning experience. In addition to providing insights into pedagogical effectiveness, this research has practical implications for teacher training and professional development. By analyzing methods that contribute most significantly to preschool education, the study aims to support educators in adopting strategies that align with children's developmental, social, and emotional needs. Furthermore, the findings can inform the design of educational policies and curricula that enhance the quality of early childhood education, ensuring a strong foundation for lifelong learning.

Ultimately, the purpose of this research is to identify and analyze effective strategies and techniques that improve teaching and learning in preschool education. In doing so, it provides educators with evidence-based guidance for fostering engagement, motivation, creativity, and critical skills, while contributing to the broader goal of strengthening pedagogical practices and creating equitable opportunities for all children.

2. MATERIALS AND METHODS

This study employed a mixed-methods design, combining qualitative and quantitative approaches to investigate the effectiveness of contemporary teaching strategies in preschool education. The design allowed for the collection of both numerical data on teaching outcomes and descriptive data regarding the perceptions of educators and parents.

The target population consisted of preschool educators in North Macedonia. A purposive sample of 45 educators was selected from two types of institutions: (a) lower secondary schools with preschool units (15 educators) and (b) kindergartens dedicated exclusively to early childhood education (30 educators). To increase diversity, 5 additional educators were included from the Preschool Institution *Lapsi* in Pristina, Kosovo.

Data were gathered between March and April through three complementary techniques:

1. **Semi-structured interviews:** An online platform (Google Forms) was used to distribute open- and closed-ended questions to all 45 educators. The interview guide contained 12 core questions related to teaching strategies, use of play, integration of technology, parental involvement, and perceived effectiveness of methods. Each educator was given two weeks to respond. Follow-up clarification was sought via email when necessary.
2. **Direct observations:** Each educator was observed for a minimum of two teaching sessions (45–60 minutes each). Observations focused on the type of methods employed (e.g., play-based learning, group work, Montessori practices, storytelling), children's level of engagement, and the integration of digital tools. Field notes were recorded using a standardized observation protocol, ensuring comparability across sites.
3. **Surveys:** A structured questionnaire was administered to collect quantitative data on the frequency and perceived outcomes of different methods. Additionally, children's creative products (e.g., drawings, group projects, storytelling activities) were collected and analyzed as evidence of cognitive, social, and emotional development.

All interview responses were transcribed verbatim. Observation notes and creative outputs were digitized and anonymized to protect participant confidentiality. Each dataset was coded with a unique identifier corresponding to the educator and institution.

Data Analysis

Qualitative analysis: Interview transcripts and observation notes were analyzed thematically using an inductive coding approach. Codes were grouped into categories such as “active engagement,” “creativity,” “technology use,” and “parental involvement.” A second coder independently analyzed 20% of the data to ensure inter-rater reliability (>85% agreement).

Quantitative analysis: Survey data were entered into SPSS (version 27). Descriptive statistics (percentages, means, and standard deviations) were calculated for the frequency of methods. Pearson's correlation coefficients were computed to examine relationships between instructional approaches and reported child outcomes. Graphs and charts were generated to illustrate key trends. All participants provided informed consent prior to participation. Data were anonymized, and institutional names are reported only to describe sample diversity.

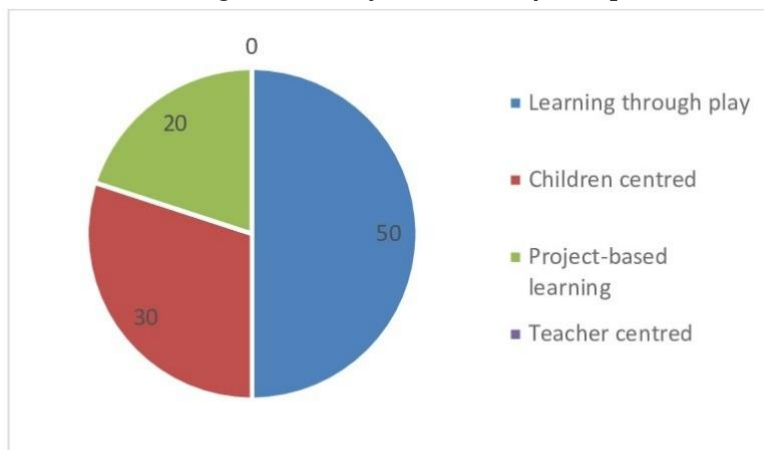
Hypotheses: The study tested the following hypotheses:

- H1: Play-based and nature-based methods increase children's engagement and motivation.
- H2: Montessori and experiential learning materials enhance concentration and cognitive growth.
- H3: Interactive technology improves engagement but may reduce motor and social development if overused.
- H4: Active parental involvement positively influences children's academic success and socio-emotional development.

3. RESULTS

Based on the educators' responses to the question regarding the teaching methods most frequently used in preschool education, the following distribution was observed: **learning through play** was reported by 50% of respondents, indicating its predominant use and suggesting that educators regard play as a central tool for fostering children's cognitive, social, and emotional development. **Child-centered approaches** were reported by 30% of respondents, reflecting an emphasis on pedagogical practices that prioritize children's needs and interests and promote their active involvement in directing the learning process. **Project-based learning** was identified by 20% of respondents, indicating the use of interdisciplinary and practical explorations of various topics. Notably, none of the respondents reported using a **teacher-centered approach (0%)**, suggesting that traditional, teacher-dominated methods are no longer favored in preschool education.

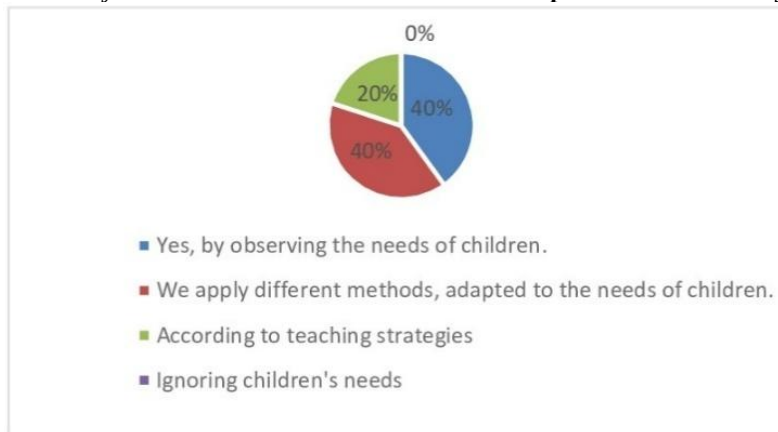
Graphic 1. Which teaching methods do you use most often in preschool education?



Source: Author's research

Analysis of educators' responses to the question regarding the use of individualized methods to adapt to children's learning styles revealed the following: **40%** reported employing individualized approaches by observing children's needs and adapting methods accordingly; **40%** indicated using various methods to align with children's learning styles through personalized techniques; **20%** reported relying on established teaching strategies to adapt the learning process; and **0%** stated that they ignore children's individual needs. These results indicate a strong overall tendency among educators to personalize learning and attend to children's specific needs.

Graphic 2. Do you use individualization methods to adapt children's learning style?

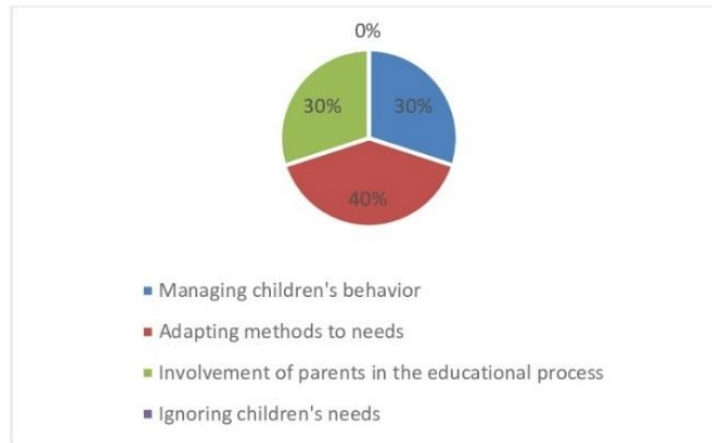


Source: Author's research

Analysis of educators' responses regarding their teaching tendencies and approaches revealed the following distribution: **30%** reported primarily focusing on meeting the individual needs of children by adapting activities and

methods to their personal developmental levels; **40%** emphasized adapting teaching methods to children's needs through the use of various techniques aimed at creating an appropriate learning environment; **30%** highlighted the involvement of parents in the educational process, promoting continuous cooperation between the home and school environments; and **0%** reported disregarding children's needs. These findings indicate a strong overall tendency toward personalizing the learning process and adopting a comprehensive, collaborative approach to child development.

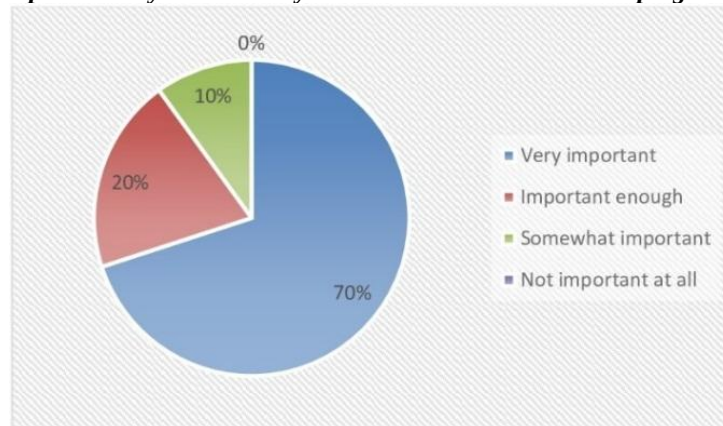
Graphic 3. What are the main challenges you face while teaching at the preschool level?



Source: Author's research

Analysis of the collected data shows that **70%** of educators consider their role to be very important in shaping children's character, viewing their influence as a key factor in the development of children's values, behavior, and personality. Additionally, **20%** of educators rated their role as important but emphasized that character formation is also shaped by external factors such as parents and the broader community. These findings suggest that while educators predominantly perceive themselves as central figures in children's moral and social development, a notable portion also acknowledges the significance of collaborative involvement from families and the community.

Graphic 4. How important do you consider your role as an educator in shaping children's character?

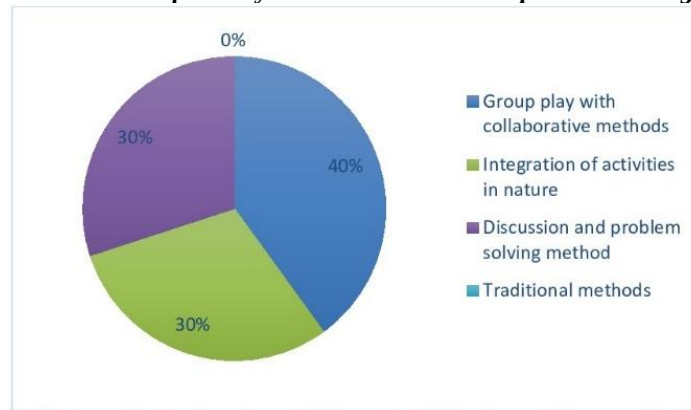


Source: Author's research

Based on educators' responses, a variety of techniques are used to promote cooperation among children. Specifically, **40%** of educators reported primarily using **group play**, **30%** reported **integrating nature into activities**, and **30%** reported using the **discussion and problem-solving method**. These results indicate a tendency toward approaches that encourage interaction, problem solving, and active engagement of children in the learning process. The findings further emphasize the role of a structured environment in which children develop cooperative skills through play, nature-based activities, and guided discussions. Such approaches were reported to support children's social development while strengthening their communication, empathy, and teamwork skills.

Additionally, several educators highlighted the potential for greater effectiveness when these methods are combined and supported through collaboration between educators and parents.

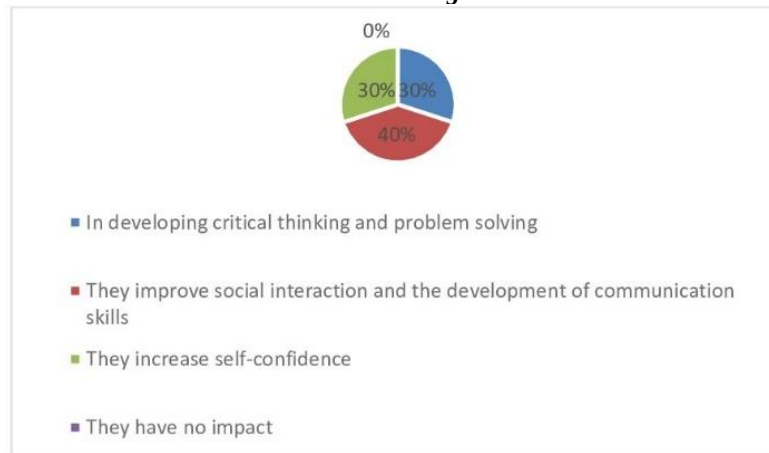
Graphic 5. What techniques do you use to stimulate cooperation among children?



Source: Author's research

Analysis of educators' responses indicates that innovative methods are perceived to have several positive effects on children's development. Specifically, **40%** of respondents reported that innovative methods contribute to the development of **critical thinking and problem-solving skills**, viewing the integration of new approaches as a way to strengthen children's analytical and independent thinking. Additionally, **30%** highlighted that such methods improve **social interaction and collaborative skills**, emphasizing their role in fostering communication, teamwork, and empathy, which support both social and academic success. A further **30%** reported that innovative methods enhance **self-confidence and autonomy**, noting that these approaches provide children with more opportunities to make independent decisions and build confidence in their abilities. Overall, these results suggest that educators perceive innovative methods as having a substantial and multifaceted impact on children's preparation for the future, supporting their academic, social, and emotional development.

Graphic 6. The assessment of the impact of innovative methods in preparing children for future academic and social challenges?



Source: Author's research

Analysis of the educators' responses regarding techniques used to stimulate children's creativity revealed the following distribution: **40%** reported the use of **open-ended games and games without strict rules**, indicating that children demonstrate higher levels of creativity when given the freedom to explore and initiate their own play, thereby fostering autonomy, innovative thinking, and problem-solving skills. **30%** reported using **building and creating materials**, highlighting the role of experimentation and physical creation in helping children express their ideas and develop creative thinking. Another **30%** reported the use of **imaginary stories and role-play**, which were

described as effective for enhancing creativity and communication skills while supporting the development of abstract thinking and cooperation. Finally, **10%** reported using **exploration of nature** as a technique to stimulate creativity, noting that although less frequently applied, it provides opportunities for experimenting with real elements and promotes open-ended thinking in connection with the surrounding environment.

4. DISCUSSIONS

The results highlight the critical role of **child-centered, flexible, and creative teaching approaches** in fostering not only cognitive development but also social, emotional, and autonomous skills in preschool children. By integrating play, problem-solving, and cooperative activities, educators create environments that encourage exploration, innovation, and active engagement. The emphasis on individualized strategies and strong parental involvement further underscores the importance of a holistic, collaborative framework that bridges home and school. These findings suggest that the effectiveness of early childhood education is maximized when structured guidance is balanced with opportunities for autonomy and creativity, offering a model that supports long-term developmental and social outcomes.

5. CONCLUSIONS

The findings of this study underscore the importance of adopting child-centered, flexible, and evidence-based approaches in preschool education. Both parents and educators play a pivotal role in facilitating the cognitive, social, and emotional development of children. Effective collaboration between these stakeholders, combined with the use of innovative pedagogical strategies, contributes to creating learning environments that are stimulating, supportive, and developmentally appropriate.

Recommendations for Parents: Parents are encouraged to actively support play-based and exploratory learning, providing opportunities for children to engage with the natural environment and learn through hands-on experiences. Participation in activities that involve concrete materials, such as Montessori tools, simple experiments, and visualizations—can enhance cognitive development and foster problem-solving skills. The use of technology should be carefully monitored and integrated with physical and interactive experiences to maintain motor and social competencies. Regular communication and collaboration with educators are essential to ensure continuity in learning and to support children’s academic and emotional growth.

Recommendations for Educators: Educators should prioritize play-based methodologies to increase motivation and engagement among preschool learners. Incorporating Montessori materials and experiential approaches allows children to learn through direct interaction and self-directed exploration. The use of technology should be strategically managed as a complementary tool, ensuring it enhances learning while maintaining a balance with physical activities and social interaction. Educators are also encouraged to involve parents actively in the educational process, through meetings, collaborative activities, and joint engagement in children’s’ learning experiences, thereby fostering effective partnerships that reinforce educational outcomes.

Recommended key strategies for implementation:

- **Learning through play:** Promotes both cognitive and motor development.
- **Natural exploration:** Enhances social, emotional, and creative skills.
- **Interactive technology:** Increases engagement when balanced with physical and social activities.
- **Montessori Method:** Supports autonomy, structured exploration, and hands-on learning, with the teacher acting as a facilitator rather than a director.

In conclusion, high-quality preschool education requires a holistic approach that integrates play, experiential learning, judicious use of technology, and active parental involvement. By adopting these strategies, both educators and parents can provide children with enriched learning experiences that promote cognitive, social, and emotional development, laying a solid foundation for lifelong learning.

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