https://doi.org/10.53656/ped2024-3.02

Research Insights
Изследователски проникновения

PEDAGOGICAL FACILITATION OF COGNITIVE DEVELOPMENT IN EARLY CHILDHOOD

Prof. Dr. Petya Konakchieva
St. Cyril and St. Methodius University of Veliko Tarnovo (Bulgaria)

Abstract. The paper gives backed-with-arguments reasons for systematic and purposeful facilitation of children's cognitive development through adequate didactic tools guaranteeing the quality of future interactive learning. The theoretical knowledge of the phenomenological parameters of pedagogical facilitation in the discourse of early childhood education is supplemented. Emphasis is placed on the need to apply technologies facilitating the development of children's competencies to explore environment as a children's sovereign right to actively acquire knowledge in the context of subjective valuable meaningful activities. Role models for expanding the intellectual capacity of the growing individuality, significant for the professional daily life of teacher facilitators, are specified.

Keywords: pedagogical facilitation; cognitive development; early childhood education; facilitating role models

Introduction

Early childhood is a unique stage in the development of the growing individuality and defines orientation towards learning as a prospect determining successful integration and functioning in the dynamically changing world. The provision of the necessary cognitive basis of experience in this sensitive period is guaranteed through pedagogical facilitation means. Consolidated in the game educational space, they support the processes of children's orientation in the natural and social environment, encouraging inclusion in various meaningful environment-exploring activities. Through them, the acquisition of knowledge of signs, qualities, and properties of natural and social objects, processes, and phenomena, necessary for the insight into the connections and dependencies between nature and society, is prepared. The expansion of the individual cognitive capacity as a benchmark for creating a picture of the world is an aspect of the quality of educational interaction, pursued in a positive environment setting where the ambition to proactively acquire impressions through a subjective-valuable interaction with the natural and social environment is valued and supported.

Methodology

The *goal* of the paper is, by sharing author's reflections, to provoke a professional discussion related to the functions of pedagogical facilitation as a tool for stimulating cognitive development in early childhood. The research efforts are aimed at systematizing the evidence-theoretic judgments about the advantages of facilitating technologies as educational-applied solutions to support the cognitive enhancement of the experience of the growing individuality. Through pedagogical extrapolation tools, scientific ideas are specified and enriched for the role models used by teacher facilitators in the open space of positive supportive environment, where inclusive involvement of children in environmental exploration can be achieved.

Results

In the conceptual and terminological dictionary of pedagogy, the meaning of facilitation is associated with the active content embedded in the verb *facilitate* (make easier, assist, help, encourage). The synonymous reference points to a delicate and unobtrusive management of educational interaction, where teachers are in the position of collaborators creating the necessary conditions to facilitate little explorers searching and finding ways of orientation in the diversity and unity of the natural and social environment. In this sense, pedagogical facilitation is a valuable tool for initiating, stimulating, and encouraging the growing individuality towards self-development and self-actualization in a child – environment interaction setting. This definition reflects a phenomenological essence that can be nuanced in a different paradigmatic context to highlight essential features relevant to ensuring quality early childhood education.

In the field of the person-oriented approach, pedagogical facilitation is a technology for supporting the subject – subject functioning of educational interaction participants while respecting the self-worth, uniqueness, and intellectual freedom of children's personalities. The cultural paradigm enriches the vision of the essence of pedagogical facilitation as a means of ensuring chances of inclusion to cultural values necessary for successful adaptation in the rapidly changing world. Another emphasis is derived from the position of the synergistic approach. It focuses on the procedural direction of pedagogical facilitation, setting the creation of a complete picture of the world through the purposeful formation of one's own style of activity, behaviour, and communication. The didactic importance of the facilitating functions of teachers is associated with the formation of a sustainable attitude to get to know the world through active transformation and an initiative attitude to exploration. In the discourse of the competence paradigm, it is a personal development process and mechanism presupposing the formation of key competencies related to lifelong learning. From an acmeological point of view, pedagogical facilitation is a tool for interaction, formation, development, self-identification, self-realiza-

tion, and self-improvement of the growing individuality, which, through playing, acquires cognitive experience, interacting with the objective reality of the positive educational environment prepared.

The effectiveness of facilitating technologies is determined by the professional and practical skills of teachers who apply them in an early childhood education setting. Of particular importance here is the attitude towards changing the style of communication of their intentional pedagogical and non-intentional personal interaction with little explorers. As the subject of child – environment cognitive interaction, modern teachers are "public figures responsible for the overall educational policies of children's institutions. They are more and more often consultants and experts now". (Petrova 2016, p. 139). Immanent characteristics in their profiles as facilitators are the empathy for children, openness to them, creativity, acceptance of the uniqueness of children's personalities, ability to create and maintain a positive atmosphere for the development of subject interactions, emotional co-experience of achievements, tolerance, including to the right to make mistakes, reflexivity as a focus on one's own pedagogical activity and as support for the growing individuality to look at the results of its own activity. Their manifestation takes place in an atmosphere of positive relations, where teachers demonstrate empathy, understanding and patience, and show tolerance towards the emancipation of children's points of view and behaviour.

Teacher facilitators focus their efforts on ensuring chances for children's successful functioning in various meaningful activities by variable managing of educational interaction in a positive supportive environment, provoking expressions of curiosity and motivating cognitive activity, providing the necessary materials for free and devoid-of-strict-schemes research, reorganization, transformation, and discovery of signs, properties, and functions. What is valuable here is not only the acquisition of empirical knowledge, but also the orientation to reflection, giving initial meaningfulness to the activity through emotional experience of the subjective significance of the result. The help from the position of collaborators, teammates, and co-explorers catalyses little explorers' efforts toward mastering goal-setting, planning, analysing, and evaluating algorithms relevant to emancipated learning, where "knowledge is driven by curiosity. By its very nature, it directs to a search for the unknown or misunderstood, and the search for the unknown is based on what is already known. This objective dependence between available knowledge and the need for new one based thereon must be skilfully used by teachers and parents to promote curiosity and independence in early childhood development" (Hristova 2022, p. 58). An important advantage is the individual orientation focused on children and their needs, interests, and desires for acquiring cognitive experience.

The facilitation of children's cognitive development involves creation of a supportive environment containing a variety of stimuli to provoke curiosity about the environment. Encouraging interest in the material environment presupposes pur-

posefulness of examination and initiation of operation with material objects for the manifestation of signs that involve children in discovering new qualities or functions of the objects studied. Supporting the process of perceiving and processing the sensations received from one's own body and the environment is especially valuable, as they are an important element of planning and organizing behaviour. It is the enhanced sensory sensation when performing a meaningful activity that is the basis for improving adaptability and learning (Bundy, Lane & Murray 2018, p. 38).

The dynamics of children's cognitive development is determined by the degree of active participation in various meaningful activities, which is prompted by the needs to get to know the environment and is of a variable nature. In the context of facilitating technologies, "the activation of children is interpreted as a process of supporting orientation towards activity, behaviour, and communication that build the pedagogical interaction in their interrelationships" (Gyurov 2006, p. 49). According to M. Stoyanova, "the development of cognitive needs is associated with the interest in how to solve a contradiction or a problem, with the overcoming of an intellectual difficulty" (Stoyanova 2019, p. 44).

Analysing the characteristics of effective pedagogical interaction, E. Stefanova emphasized the need for teachers "...to create appropriate prerequisites and conditions for provoking children's interest, motivated involvement in (...) activities, and inclusion (...) to provide significant motivation presupposing an internal subjective-valuable attitude to participation" (Stefanova 2023, pp. 36 – 37). The enrichment of sensory experience requires "... improvement of the perceptions of the material and living objects in the near and more distant environment accessible to children" (Gyurov 1999, p. 71). The orientation in the material environment is related to the mastery of sensory benchmarks to the extent of becoming a sensory culture. Parallel to differentiating the colour, shape, and size of material objects and the materials from which they are made, children learn how to verbalize their discoveries. They get eager to perform simple cognitive tasks as adults' partners and are gradually emancipated by them.

Material environment is the basis for realizing communicative interactions with a cognitive focus, enriching not only the sensory but also the emotional experience of children's personalities, especially when related to the experience of success. In this context, V. Gyurova clarified that "...game reality always has the parameters of the material game situations of children, but their inner realization in them by experiencing them, on an individual level, as their own game world is much more important" (Gyurova 2000, p. 19).

The need for impressions sets impulses to explore the immediate environment. At first, this process is realized through the sounds and images perceived by children, and the tactile contact with nearby adults. Mastering movements expands environment exploration tools. A dynamic complex of analysers is involved, through which diverse perceptions are acquired. They are the basis of the initial picture of

the world and the development of self-awareness. The communication with one's significant others promotes the formation of self-confidence through the acquisition of positive experience from activities. It catalyses the manifestations of purposefulness as a tangible achievement that allows children to understand the meaning of cognitive activity. The own management of cognitive acts and their structuring into a system focused on the desired goal orient children in the algorithm for achieving a certain result. This experience is valuable because by interacting with the immediate environment, children learn to experiment with it and transform it by manipulating its content. Thus, children assert their right to explore their environment by playing and protect their own perimeter for the realization of meaningful creative activities in the conditions of which to assert themselves. For the success of this process, the expansion of cognitive capacity in unity with speech development is important. The logic of intellectual development is manifested in the progressive emancipation of thinking, which "... gradually breaks its immediate connection with specific actions and perceptions and begins to rely on an expanded circle of ideas and verbal generalizations. Memory also develops in close connection with the expanded sensory and intellectual perception of reality" (Legkostup 2005, p. 542). As for language development, "there are significant individual differences in language learning. A great variability can be seen in the time of acquisition of language skills" (Chuhovska 2022, p. 126). Therefore, it is necessary to facilitate children to discover the meaning of speech as a means of knowledge, which significantly improves cognitive activity at the level of sensations. This view corresponds to "…the basic idea of the theory of sensory integration that the brain functions as a single whole and all sensations should be integrated. Here, the main achievements are aimed at skills that are the basis for academic learning: language and speech, purposeful activity, eye-hand coordination, visual perception" (Popova 2019, p. 421).

Pedagogical technologies for facilitating cognitive development in early childhood consider the importance of the dynamic activity integrity consolidated through the games, and perform the following functions:

– promote purposeful activities;

– facilitate the discovery of research/study objects;

– support the choice of ways to operate;

– facilitate the choice of means of acquiring new impressions;

– stimulate children's involvement in the procedural deployment of research acts;

– support the emotional experience of achievements;

– maintain the need for new discoveries.

In the social and psychological discourse, pedagogical facilitation implies a delicate and tactful stimulation of children's activities, communication, and behaviour in a trusting positive environment that promotes the free functioning of children as subjects of their own activity. Facilitating tools allow skilful guidance

of educational interaction while considering children's needs and interests. Their application presupposes an understanding of the subjective world of the growing individuality and respect for the free expression of the experiences accompanying the exploration of the environment. The personal commitment of teachers is an aspect of a value-oriented interaction that supports the children's ambitions for realizing their own identity and for self-affirmation when discovering their place in the natural and social environment.

Discussion

The effectiveness of implementing educational programs for children depends to a significant extent on the professional and practical competences of teacher facilitators. The preparation of such competences should be a priority in university education, and, subsequently, they should be purposefully developed as part of the profile of modern teachers accepting with respect children's environmental exploration and knowing how to stimulate and support it in the setting of the multifaceted space of games, where purposeful facilitation is achieved through "... the use of innovative methods and means enabling active interaction between the educational-process participants" (Ivanova 2022, p. 226).

In pedagogical facilitation, teachers can use different role models to be combined and harmonized in order to provide the necessary support to children's cognitive development. From the position of leaders, they facilitate the involvement of children in meaningful game-based activities aimed at subjective-valuable exploration of the near material environment, where "in the varied game context, the growing individuality feels safe, protected, and free to choose, change, and improve its experience" (Tsaneva 2022, p. 256). This role model allows teachers to support the decision to deploy perceptual, motor, material-manipulative, exploratory, and practical and experimental actions, to guide the resolution of accessible cognitive contradictions, and verbalize the discoveries made. Applying the *Creative Manager* role model, teacher facilitators set a model of tolerance for uncertainty and accompany children in the cognitive processing of the information acquired, facilitating the systematization of newly acquired impressions and their consolidation with previously obtained ones in order to generate "insights" for their mobile use when dealing with subsequent cognitive challenges. Thus, "the creative impulse is a catalyst for the development of creative forces, perceptions, imagination, and will. It is a leading factor for the formation of consciousness, and hence for cultivating independence as an important prerequisite for overall development of children's personalities" (Nikolova 2022, p. 222). The *Affective Manager* role model allows teacher facilitators to actively use the demonstration of strategies for exploratory behaviour and communication with the environment, considering children's orientation towards subjective-valuable discoveries. The *Neuromanager* role model presupposes complementing facilitating technologies

with emotion-based techniques that provoke positive experiences as manifestations of children's happy environmental exploration. The *Expert* role model allows teachers to assert their authority as confidants by sharing an opinion or perspective on the activity of little explorers. The *Consultant* role model provides tools to guide children to apply the acquired information in their own life by setting perspectives of new discoveries and facilitating the independent finding of cognitive challenges.

Conclusion

Academic prosperity in early childhood is determined by the successful involvement of the growing individuality in activities related to active acquisition of cognitive experience and implies guaranteeing the emotionally rich co-experience of every initiative contact with the surrounding material and living objects and phenomena. An aspect of pedagogical facilitation is the encouragement and co-experience of the attitude towards the new as a subjective-valuable achievement. A special focus should be the stimuli that set a direction to interact with the environment. They should be integrated into prepared situational mobilities, in the conditions of which little environmental explorers can accumulate impressions and feel satisfaction from the efforts made. Their effectiveness is determined by the systematic application of facilitating technologies, the development and justification of which is an aspect of the professional and personal commitment of modern teachers to the efforts of the pedagogical community to guarantee quality early childhood education.

REFERENCES

BUNDY, A.; LANE, S. & MURRAY, E., 2018. *Sensory Integration. Theory and Practice.* Moscow: Terevinf [In Russian]. ISBN 978-5-4212-0411-1.

CHUHOVSKA, D., 2022. Periodization of Language Development of Children in Early Childhood and Preschool Age. *Proceedings of the Current Security Issues scientific conference*, 27 – 28 October 2022. Veliko Tarnovo: Publishing Complex of Vasil Levski National Military University [In Bulgarian]. ISSN 2367-7465.

GYUROV, D., 1999. *Pedagogy of Child – Environment Interaction*. Sofia: Veda Slovena – ŽG [In Bulgarian]. ISBN 954-8510-50-2.

GYUROV, D., 2006. *Pedagogical Interaction. Innovative Model for Building a Kindergarten – School Unified Socio-Pedagogical System*. Sofia: St. Kliment Ohridski University Publishing House [In Bulgarian] ISBN-10: 954-07-2424-4.

GYUROVA, V., 2000. *Pedagogical Technologies of Game Interaction.* Sofia: Veda-Slovena – ŽG [In Bulgarian]. ISBN 954 8510-60X.

HRISTOVA, R., 2022. *Socio-Emotional Dimensions of Activities in Preschool Childhood.* Veliko Tarnovo: ITI Publishing House [In Bulgarian]. ISBN 978-619-7602-26-5.

IVANOVA, B., 2022. *Augmented and Virtual Reality Technologies in Modern Educational Environment.* Veliko Tarnovo: St. Cyril and St. Methodius University Publishing House [in Bulgarian]. ISBN 978-619-208-324-3.

LEGKOSTUP, PL., 2005. *Visual Abilities and Intelligence of 5-to-6-Year-Old Children.* Moscow: Prometheus Publishing House [In Russian]. ISBN 5-7042-1446-0.

NIKOLOVA, G., 2022. Communication with Works of Art – Factor in the Development of Creative Abilities of Preschool Children. Veliko Tarnovo: St. Cyril and St. Methodius University Publishing House [In Bulgarian]. ISBN 978-619-208-297-0.

PETROVA, KR., 2016. Competencies of Preschool Teachers. *Pedagogical Education – Traditions and Modernity international scientific conference.* V. Tarnovo: I & B [In Bulgarian] ISSN 2534-9317.

POPOVA, D., 2019. *Speech Development Through the Lens of Sensory Integration Theory.* Veliko Tarnovo: I & B Publishing House [In Bulgarian]. ISSN 2534-9317.

STEFANOVA, E., 2023. *Local Studies and Local Studies Activity in Man – Society – Nature Educational Interaction (1st – 4th Grade*). Veliko Tarnovo: ITI Publishing House [In Bulgarian]. ISBN 978-619-7602-45-6.

STOYANOVA, M., 2019. *Mastering Key Competencies When Navigating the World*. Ruse: Avangard Print Publishing House [In Bulgarian]. ISBN 978-954-337-398-7.

TSANEVA, Y., 2022. *Game Functions for Correction of Communicative Disorders in Preschool Children.* Veliko Tarnovo: St. Cyril and St. Methodius University Publishing House [In Bulgarian]. ISBN 978-619-208-297-0.

✉**Prof. Dr. Petya Konakchieva**
ORCID iD: 0000-0002-1572-8729
Faculty of Pedagogy
St. Cyril and St. Methodius University of Veliko Tarnovo
Veliko Tarnovo, Bulgaria
E-mail: p.konakchieva@ts.uni-vt.bg

https://doi.org/10.53656/ped2024-3.03

Research Insights
Изследователски проникновения

ATTITUDES AND EXPERIENCES OF THE PRESCHOOL TEACHERS IN THE APPLICATION OF DIGITAL TECHNOLOGIES IN ENVIRONMENTAL EDUCATION

Prof. Nataša Branković, DSc., Prof. Gordana Kozoderović, DSc., Prof. Biljana Jeremić, DSc., Prof. Danijela Petrović, DSc., Prof. Bojan Lazić, DSc.
University of Novi Sad (Serbia)
Slavica Karanović
Kindergarten „Boško Buha" – Beograd (Serbia)

Abstract. This study was based on the experiences and attitudes of the preschool teachers in the application of digital technologies when teaching environmental contents. 180 preschool teachers from preschool institutions in the Republic of Serbia, with different work experience and different digital skills, participated in the research. The obtained results demonstrated that the preschool teachers' competencies decrease with the increase in the number of years of work experience, indicating that competencies for the application of digital tools were more developed in the preschool teachers with modest work experience. They also exhibited a greater level of experience in using digital technologies regarding environmental education. The results also showed that there was a significant connection between the application of digital technologies in different domains of the preschool teacher's work (such as: ideas search, research on the grounds and topics that initiate the project, project development, a portfolio design and evidence of one's own practice, publication of activities in digital format - in scientific publications, at congresses, on a personal blog and/or preschool institution's website). Thus in the mentioned domains of work, preschool teachers with significant work experience, applied digital technologies less often when compared to the colleagues with shorter employment history.

Keywords: digital competencies; environmental education; digital media technologies

Introduction

There is no doubt that the use of digital media changes the circumstances of application and realisation of pedagogical practice. The need and obligation to move more decisively towards the application and integration of digital media