

**INTERNATIONAL  
SCIENTIFIC  
CONFERENCE ON**

Korçë, January 15<sup>th</sup> 2025

**EARLY CHILDHOOD  
EDUCATION AND CARE:  
CHALLENGES AND  
PERSPECTIVES**



4<sup>th</sup> Conference 2025

# International Scientific Conference

## **“EARLY CHILDHOOD EDUCATION AND CARE: CHALLENGES AND PERSPECTIVES”**

Hosted by:

“Fan S. Noli” University of Korça, Department of Education

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in collaboration with:

- ❖ Department of Education Sciences "Giovanni Maria Bertin", University of Bologna
- ❖ University of Western Macedonia, Greece
- ❖ University of Tetovo, North Macedonia

Korçë, January 15<sup>th</sup>, 2025

## **PROCEEDING BOOK**



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**Prof. TOMI TRESKA**, Associate Professor, European University of Tirana

**Prof. FEDERICA ZANETTI**, Professor at Department of Educational Sciences “Giovanni Maria Bertin”, University of Bologna

**Prof. JULIENE FERREIRA**, Associate Professor in Education, Faculty of Education and Culture, Tampere University

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**“EARLY CHILDHOOD EDUCATION AND CARE: CHALLENGES AND  
PERSPECTIVES” CONFERENCE**

**KORÇË, 2025**

**PROCEEDING BOOK**

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CONFERENCE PROGRAM

**9:30-10:00 Registration to Conference: Hall of Faculty of Education and Philology Building or Registration Platform**

**<https://forms.gle/6Mz5uyfAubY6n4Vs9>**

**10:00 Opening**

**MODERATOR: PROFESSOR DORELA KACAUNI**

**PLENARY SESSION**

**ROOM – Library of Faculty of Education and Philology**

**FACULTY OF EDUCATION AND PHILOLOGY BUILDING**

**ZOOM**

**Meeting**

**Link**

**<https://us04web.zoom.us/j/76078936346?pwd=H9b35FVO5vo0K2OMfLHS8G3Bkd6Oyp.1>**

**10.<sup>00</sup> : 10.<sup>10</sup>**

**Greeting from the Rector of “Fan S. Noli” University, Prof. Dr. Lorenc Ekonomi**

**10.<sup>10</sup> : 10.<sup>15</sup>**

**Greeting from the Dean of the Faculty of Education and Philology, University “Fan S. Noli”, Prof.as.Dr. Jonela Spaho**

**10.<sup>15</sup> : 10.<sup>20</sup>**

**Greeting from the Head of the Department of Education. “Fan S. Noli” University of Korça, PhD. ALBINA PAJO**

**10.<sup>20</sup> : 10.<sup>30</sup>**

**Greeting from Prof. Dr. Kushtrim Ahmeti, Dean of the Faculty of Philosophy, University of Tetovo, North Macedonia**

**10.<sup>30</sup> : 10.<sup>40</sup> - Keynote speaker**

**Federica Zanetti, Professor at Department of Educational Sciences “Giovanni Maria Bertin”, University of Bologna**

***Children as Citizens Today: Rethinking Childhood Participation in Times of Global Violence***

10.<sup>40</sup> : 10.<sup>55</sup> Keynote speaker

**Julienne Madureira Ferreira**, Associate Professor in Education,  
Faculty of Education and Culture, Tampere University

*An Embodied View on Collaboration between children with  
intellectual disabilities and their peers in inclusive Early Childhood  
Education*

10.<sup>55</sup> : 11.<sup>10</sup> - Keynote speaker

**Tomi Treska**, Associate Professor, European University of Tirana

*PRE-SCHOOL EDUCATION IN ALBANIA. IS ALBANIA READY TO  
MAKE PRE-SCHOOL EDUCATION COMPULSORY? A MULTIDIMENSIONAL  
ANALYSIS*

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**Federica Zanetti**, Associate Professor in Didactics and Special Pedagogy. She teaches teaching and communication strategies for adults and strategies and tools for empowerment and active citizenship. She is the scientific manager of the Education, History and Politics Center. Since 2009 she has been a member of the Center for Gender and Education Studies.

Since 2010 she directs the Advanced Training Course "Theater as a tool for educational professionalism", has the scientific and artistic direction of the Summer School "Theater and Education for Citizenship" and the "Theater Festival of Democratic Citizenship" since 2007.

Since 2001 she has carried out consultancy, monitoring and training activities in the context of international development cooperation, especially in Kosovo and Albania, El Salvador, Belarus, Palestine and the Gaza Strip, Macedonia.



**Juliene Madureira Ferreira** is an Associate Professor in the Faculty of Education and Culture at Tampere University and currently leads the subgroup Child and Learning Ecologies within the ECEPP research group. She received her PhD in Psychology (Developmental Psychology) from São Paulo University in 2017 and her PhD in Education from the University of Tampere at the end of 2018, followed by a two-year postdoctoral fellowship also at

Tampere University (TAU). Before arriving at TAU, she worked at the Department of Educational Psychology of the Teacher Training School of the Federal University of Uberlândia, Brazil (2010-2017). During this appointment, she also served as the school's vice dean of the unit and coordinated the administrative, academic, and research activities in the areas of Early Childhood Education and the First years of Elementary Education (2012-2015), and was directly involved in the reconfiguration of the early childhood education curriculum. At the Federal University of Uberlândia, Brazil, Juliene Ferreira also coordinated one of the Programs for Teacher Education in Special Education in the National Network for Teacher Education in Inclusive Education, organised by the Ministry of Education in Brazil (2009-2014).

In her research, Juliene has investigated students' sociability in challenging social interactions/contexts (e.g., when group members have significantly different developmental paths, including children with intellectual disability), analysing how diverse ways of establishing intersubjectivity influence peer learning (2013-2019). Her research has also focused on understanding material affordances for action in learning situations, advancing our understanding of neurodivergent social cognition and developing inclusive practices in special support. In collaboration with colleagues for the USA, China, Taiwan, and Brazil, Juliene has also investigated learning and teaching of (inter)relational processes of care, building on moral education, ethics of care, and developmental psychology to investigate how care is conceptualised, learned, and taught across different ages and cultures. The results provided insights into how learning to care for others, across cultures, is grounded in embodied and affective social experiences.



**Tomi Treska** is an Associate Professor at the Department of Psychology, Education, and Sports at the European University of Tirana.

He completed his university studies at the Faculty of History and Philology at the University of Tirana, majoring in History and Geography. He also holds a degree in Law from the University of Shkodra “Luigj Gurakuqi.”

With a long experience in teaching in university level, enriched experience for several national and international agencies, about cases concerning with teachers’ and principals’ trainings, with the partnerships at school- family, “good” governing, surveys and analysis, reports, etc.

He has published multiple scientific articles in well-known academic journals both in Albania and abroad. Since 2005, he has been the author of history textbooks for the pre-university education system. Dr. Treska has also worked for about eight years with various international organizations and agencies and has served as a member of the National Council for Pre-University Education.

PARALLEL SESSIONS- ROOM 1

11:<sup>30</sup> – 12:<sup>55</sup>

ROOM R031 - RECTORATE BUILDING

**ZOOM Meeting Link:**

**<https://us06web.zoom.us/j/87934641184?pwd=JTL8m4DESB5c7CD24XzYgR6BL4rijC.1>**

**MODERATOR: PROFESSOR SUELA KOCA**

11:<sup>45</sup>: 11:<sup>55</sup>

**ALBINA PAJO & ALBA OSMAN**

*A HISTORICAL TIMELINE OF INFANT-CARE THEORIES IN THE COMMUNICATIVE CULTURE OF MODERN AMERICA (1890–1930)*

11:<sup>55</sup>:12:<sup>05</sup>

**LORETA MAMANI, AIDA SOTIRI & JULINDA SINANI**

*THE IMPORTANCE OF IDENTIFYING NEURODEVELOPMENTAL PROBLEMS IN EARLY CHILDHOOD*

12:<sup>05</sup>:12:<sup>15</sup>

**EVJONDA PYLLI & MARIELA BURDA**

*THE INFLUENCE OF EXTERNAL ENVIRONMENTAL STIMULI ON THE COGNITIVE AND COMMUNICATIVE DEVELOPMENT OF CHILDREN AGED 0–3 YEARS*

12:<sup>15</sup>:12:<sup>25</sup>

**ARMANDA XHANI (BAÇA)**

*LEARNING THROUGH PLAY AND TECHNOLOGY – A NEW TREND FOR IMPROVING QUALITY IN EARLY CHILDHOOD EDUCATION*

12:<sup>25</sup>:12:<sup>35</sup>

**DENIS ARSOVSKI & NATASHA CHICHEVSKA JOVANOVA**

*EARLY INTERVENTION AND MEDICAL REHABILITATION IN  
CHILDREN WITH CEREBRAL PALSY: CHALLENGES AND PERSPECTIVES IN  
INCLUSIVE EDUCATION*

12.<sup>35</sup> :12.<sup>45</sup>

**AIDA SOTIRI, LORETA MAMANI, HARALLAMB MARGARITI & ALBANA  
MUÇO**

*ART THERAPY AT EARLY AGES: THE ROLE OF DRAWING AND  
LINGUISTIC-MUSICAL GAMES IN THE EMOTIONAL EXPRESSION OF 3-YEAR-  
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12.<sup>45</sup> :12.<sup>55</sup>

**AURELA ZISI & GERTI JANAQI**

*BUILDING COMPETENT EARLY CHILDHOOD WORKFORCE:  
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12.<sup>55</sup> :13.<sup>05</sup>

**ARJAN KAMBURI, ILIRJANA NASE & ANJEZA VILA**

*CONTINUOUS PROFESSIONAL DEVELOPMENT OF EARLY  
CHILDHOOD EDUCATORS IN ALBANIA: CHALLENGES AND PERSPECTIVES  
FROM A MULTI-REGIONAL CASE STUDY*

PARALLEL SESSIONS – ROOM 2

11.<sup>45</sup> – 12.<sup>55</sup>

ROOM “QUADIC” R028

RECTORATE BUILDING

ZOOM Meeting Link:

<https://us06web.zoom.us/j/81789663212?pwd=ravL0FYV2wDT5a79tml0HiFi6MMnN2.1>

**MODERATOR:** PROFESSOR DORELA KACAUNI

11.<sup>45</sup> : 11.<sup>55</sup>

GERTI JANAQI & AURELA ZISI

*TOWARDS GLOBAL STANDARDS: MEASURING AND ENSURING  
QUALITY IN EARLY CHILDHOOD PROGRAMS*

11.<sup>55</sup> :12.<sup>05</sup>

IRENA NIKAJ

*EARLY CHILDHOOD EDUCATION IN THE ERA OF DIGITALIZATION:  
RISKS AND OPPORTUNITIES*

12.<sup>05</sup> :12.<sup>15</sup>

KLEJTI TRESKA, LINDITA TRESKA & ZENEL SINA

*PRIMARY EDUCATION AND INCLUSION OF CHILDREN WITH  
SPECIAL NEEDS*

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STERGIANI GIAOURI & NIKOLETA PERAKI

*FAMILY RESILIENCE, AND WELL-BEING IN FAMILIES OF  
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12.<sup>25</sup> :12.<sup>35</sup>

ETLEVE KOKURTI & MIMOZA CABELI

*THE IMPACT OF MUSIC ON EARLY CHILDHOOD LEARNING*

12.<sup>35</sup> :12.<sup>45</sup>

AIDA SOTIRI, LORETA MAMANI & FATBARDHA XHUVANI

*NEUROPLASTICITY OF THE BRAIN 0–3 YEARS OLD AND ITS  
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12.<sup>45</sup>:12.<sup>55</sup>

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*THE IMPACT OF PLAY ON EARLY CHILDHOOD LEARNING*

12.<sup>55</sup>:13.<sup>05</sup>

RRIOLLZA AGOLLI & LAURA AGOLLI

*STEAM APPROACH THROUGH FAIRY TALES IN PRESCHOOL  
EDUCATION*

13.<sup>10</sup>: 13.<sup>30</sup> – DISCUSSIONS & REFLECTION  
ROOM “QUADIC” R028  
Rectorate Building

ZOOM Meeting Link:

<https://us06web.zoom.us/j/87934641184?pwd=JTL8m4DESb5c7CD24XzYgR6BL4rijC.1>

**MODERATOR:** PROFESSOR SUELA KOCA

END OF CONFERENCE MEETING

**Note:**

*All participants are kindly requested to respect the presentation time*

**PRE-SCHOOL EDUCATION IN ALBANIA**  
**Is Albania Ready to Make Pre-School Education Compulsory?**  
**A Multidimensional Analysis**

**Tomi TRESKA**

*European University of Tirana*  
*tomi.treska@uet.edu.al*

**Abstract**

Pre-school education is internationally recognized as a fundamental investment in human development, influencing academic outcomes, socio-emotional growth, and the reduction of social inequalities. This study evaluates Albania's readiness to make pre-school education compulsory by analyzing developmental, institutional, economic, and societal factors. Through a review of international literature (Heckman, 2006; OECD, 2020; UNESCO, 2019; UNICEF, 2021), an analysis of national policies, and the interpretation of visual data illustrating the weight of supporting and opposing factors, the study offers a comprehensive assessment of challenges and opportunities. Findings suggest that the reform is feasible but requires a gradual approach, strengthened institutional capacities, and intersectoral coordination.

**1. Introduction**

Early childhood education has been widely identified as a key contributor to children's development and long-term social equity (UNESCO, 2019). Albania has made notable progress in expanding access to pre-school education, yet discussions about making attendance compulsory require an in-depth examination of existing capacities and structural challenges. Figure 1 (below) illustrates the supporting and opposing factors influencing this policy debate.

**2. Literature Review**

***The Development of Early Childhood Education Research***

Research in early childhood education has expanded significantly in recent decades, positioning it among the most effective investments in human development. Early studies by Heckman (2006) demonstrated that investments in early childhood yield high economic returns due

in part to lasting impacts on cognitive, social, and emotional skills. This argument is supported by other studies showing that participation in high-quality pre-school programs positively affects later academic success (Barnett, 2011) and contributes to reducing structural inequalities (UNESCO, 2019).

OECD (2020) emphasizes that pre-school education is one of the most effective mechanisms for promoting social equity. In OECD member states, early educational inclusion has shown direct impacts on human capital development and long-term economic indicators. Countries such as Ireland, Estonia, and Denmark report significant progress in literacy and numeracy among students who have attended pre-school for sufficient periods.

Furthermore, UNICEF (2021) highlights the importance of comprehensive approaches, arguing that children from vulnerable environments benefit the most from early interventions. Studies indicate that well-structured pre-school programs can reduce performance gaps between children from different socioeconomic backgrounds by up to 40%.

### ***Regional Literature and Comparative Perspectives***

Evidence from Western Balkan countries such as Croatia and Slovenia shows that broad reforms in pre-school education, aligned with EU standards, have led to increased participation, particularly in rural and marginalized communities.

Overall, existing literature strongly supports the notion that making pre-school education compulsory could yield substantial benefits for Albanian society, while simultaneously underscoring the need for investments in infrastructure, staffing, and program quality.

### ***The Importance of Early Childhood Education***

Development economists, including Heckman (2006), stress that investments in early childhood generate the highest economic and social returns. Identified benefits include improved cognitive and socio-emotional abilities and enhanced outcomes in later schooling.

### ***Pre-School Education as a Mechanism for Equity***

Countries with strong pre-school systems achieve reduced inequalities and improved results among vulnerable groups (OECD, 2020). Scandinavian models serve as reference points for inclusive approaches.

## **3. Current State of Pre-School Education in Albania**

### ***Legal Framework***

Albania recognizes pre-school education as part of the pre-university system but does not classify it as compulsory. National strategies emphasize expanded access and improved quality.

### ***Infrastructure and Institutional Capacities***

Although infrastructure has improved, urban–rural inequalities remain evident. Staffing capacities require investments in training and professional development.

### ***Financing***

Public spending is below the EU average, making additional funding essential for implementing compulsory attendance.

## **4. Analysis of Supporting and Opposing Factors**

### ***Analytical Summary***

Figure 1 illustrates the relative weight of factors supporting or opposing the adoption of compulsory pre-school education. Identified benefits relate to increased human capital, alignment with international standards, and reduced inequalities, while challenges involve financial constraints, infrastructural capacities, and geographic disparities. A deeper examination of each factor—supported by international literature and national policy analysis—extends the graphical representation and transforms it into a robust academic evaluation.

### *Supporting Factors*

**Table 1. Relative Weight of Supporting Factors**

| Supporting Factors                           | Relative Weight (1–5) |
|----------------------------------------------|-----------------------|
| Early developmental and educational benefits | 5                     |
| Expansion of universal access                | 4.5                   |
| Alignment with international standards       | 3.5                   |
| Long-term investment in human capital        | 4                     |
| Opportunity for gradual reform               | 3                     |

#### *Early Developmental and Educational Benefits*

Studies demonstrate lasting effects on cognitive and socio-emotional development (Heckman, 2006).

#### *Expansion of Universal Access*

Making pre-school compulsory would eliminate inequalities in access.

#### *Alignment with International Standards*

The reform would bring Albania closer to European educational policies (OECD, 2020).

#### *Long-Term Investment in Human Capital*

Early childhood education enhances productivity and overall social well-being.

#### *Opportunity for Gradual Reform*

A phased model of implementation reduces fiscal burden.

### *Opposing Factors*

**Table 2. Relative Weight of Opposing Factors**

| Opposing Factors                        | Relative Weight (1–5) |
|-----------------------------------------|-----------------------|
| Insufficient infrastructural capacities | 5                     |
| Fiscal costs                            | 4.5                   |
| Regional disparities                    | 4                     |

| Opposing Factors          | Relative Weight (1–5) |
|---------------------------|-----------------------|
| Lack of specialized staff | 3.5                   |
| Risk of rapid reforms     | 3                     |

### ***Insufficient Infrastructural Capacities***

Some areas lack access to high-quality institutions.

### ***Fiscal Costs***

Implementation requires sustainable funding and increased staffing (UNICEF, 2021).

### ***Regional Disparities***

Rural areas face additional access challenges.

### ***Lack of Specialized Staff***

There is a need for increased numbers and improved qualifications of educators.

### ***Risk of Rapid Reforms***

Without piloting, implementation challenges may arise.

## **5. Methodology of the Analysis**

This study employs an integrated qualitative methodology consisting of three main components:

### ***Systematic Literature Review***

A systematic review of international academic literature was conducted using databases such as ERIC, JSTOR, and Google Scholar. Sources were selected based on relevance, methodological rigor, and publication date.

### ***Document Analysis of Albanian Educational Policies***

Strategic documents, institutional reports, and statistical data from the Ministry of Education and UNICEF Albania were examined to identify structural gaps and opportunities for reform.

### ***Interpretation of Figures and Tables***

Visual instruments (figures and tables) were used to synthesize the weight of supporting and opposing factors. The analysis was guided by critical data interpretation principles used in educational research (OECD, 2020).

This combination of methods ensures a multidimensional and rigorous analysis appropriate for international academic standards.

## **5. Discussion**

### ***Balancing Benefits and Challenges***

Although the benefits of pre-school education are well-documented, infrastructural and financial challenges require careful consideration. Literature suggests that systems undergoing rapid expansion often experience declines in quality if not preceded by adequate training and strategic planning.

### ***Albania's Unique Capacities***

Albania's demographic structure favors phased implementation. Combined with trends of emigration and declining birth rates, this allows for more efficient resource allocation. However, regional disparities remain a critical challenge.

### ***Lessons from International Models***

Examples from Estonia and Slovenia show that successful reforms require long transition periods and continuous investment (OECD, 2020). Comparative analysis can help Albania avoid structural mistakes.

## **6. Recommendations**

### ***Increased Investment in Infrastructure***

Priority should be given to rural areas and vulnerable communities.

### ***Professional Training of Staff***

Standardized training programs for educators should be established.

### ***Intersectoral Approach***

Coordination among ministries is crucial for effective implementation.

### ***Pilot Implementation Before Nationwide Reform***

Piloting reduces the risks associated with large-scale reforms.

### ***Parent Awareness Campaigns***

Public campaigns are necessary to increase participation.

## **7. Conclusions**

Albania demonstrates significant potential to implement compulsory pre-school education; however, success depends on strategic planning, infrastructure development, staff training, and gradual implementation of the reform.

## **References**

- Heckman, J. J. (2006). *Skill formation and the economics of investing in disadvantaged children*. Science, 312(5782), 1900–1902.
- OECD. (2020). *Starting Strong: Early Childhood Education and Care*. OECD Publishing.
- UNESCO. (2019). *Inclusive Early Childhood Education*. UNESCO Publishing.
- UNICEF. (2021). *The State of the World's Children 2021: On My Mind*. UNICEF.

**A HISTORICAL TIMELINE OF INFANT-CARE THEORIES FROM  
HOLT TO WATSON (1890–1930)”**

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**Abstract**

This study examines the theories of infant care advanced by pediatrician Luther Emmett Holt and psychologist John B. Watson within the socio-historical context of early twentieth-century America. Far from being neutral medical or psychological prescriptions, their ideas embodied the industrial and moral logic of the Progressive Era—a time that equated scientific order with social progress. Holt’s *The Care and Feeding of Children* (1894) and Watson’s *Psychological Care of Infant and Child* (1928) transformed motherhood into a field of expert management: feeding, sleeping, and affection were to be timed, measured, and regulated as if under factory discipline.

Viewed historically, these doctrines paralleled the rise of urban industrial capitalism, in which efficiency, predictability, and emotional restraint became civic virtues. The increasing participation of women in wage labor, the emergence of public health campaigns, and the growing authority of medical and psychological experts all reinforced an ideology of “scientific motherhood” that sought to standardize domestic life according to the rhythms of industrial production. Both Holt and Watson thus constructed the ideal mother

as a disciplined technician—obedient to expert rules, emotionally restrained, and detached from instinctual affection.

By situating these theories within broader transformations of labor, gender, and class, this article argues that the early psychology of infant care functioned as a moral technology of modernity: one that reshaped private maternal behavior in the image of industrial rationality. In doing so, Holt and Watson not only defined the scientific norms of childrearing but also mirrored the anxieties and aspirations of a society learning to live by the clock.

**Keywords:** *Historical perspective, clock, care, control, infant theories.*

### **Introduction**

The history of infant care offers a revealing window into the making of modern society. The ways parents fed, comforted, disciplined, and cared for young children were never simply private family matters; they were shaped by wider ideas about health, authority, citizenship, and social order. In the United States, the decades between the late nineteenth and early twentieth centuries brought profound changes associated with industrialization, urban growth, demographic expansion, and the rise of professional expertise. As cities expanded and traditional family networks weakened, mothers increasingly encountered new forms of advice and supervision from physicians, psychologists, public-health officials, and educational reformers. Childrearing gradually moved beyond the realm of inherited family knowledge and maternal experience, becoming an area in which experts claimed growing authority. Infancy itself came to be viewed as a stage of life that could be observed, measured, and managed scientifically, while motherhood was increasingly redefined as a responsibility requiring specialized knowledge and professional guidance. Historians have described this shift as the rise of scientific motherhood, an ideology that encouraged women to look beyond family traditions and rely on professional advice when raising children (Apple, 1995). Yet the concept contained a striking contradiction. Mothers were increasingly portrayed as the individuals most responsible for their children's physical health, emotional development, and moral character, while at the same time being told

that their own knowledge and instincts were insufficient for the task. As Apple (1995) observes, authority over childrearing increasingly migrated from the household to a growing network of physicians, health officials, and educational experts. The expansion of pediatrics, maternal welfare programs, public-health campaigns, and childrearing manuals reinforced this process by presenting scientific expertise as the most reliable guide to infant development. Women acted on the basic tenets of scientific motherhood: women maintained primary responsibility for infant and childcare, but they were dependent on experts to tell them and to teach them how to best raise their children. By the second half of the twentieth century, most women believed that the best childrearing was done under scientifically informed medical supervision. (Apple, 2014). At the same time, the emergence of maternal and child welfare initiatives contributed to the consolidation of professional authority over family life, transforming child health into an issue of public concern and expert intervention (Barker, 1998). What had once been learned through observation, family experience, and community practice was increasingly reframed as a matter requiring professional instruction. Childrearing therefore became more than a private domestic responsibility; it became a sphere in which experts sought to define appropriate maternal behavior and establish standards for the care of young children.

The growing influence of professional childrearing advice did not emerge in isolation. It was closely connected to the social and economic changes that reshaped American life at the turn of the twentieth century. Industrialization and urbanization transformed how families lived, worked, and cared for children. Continuing urbanization, as families increasingly lived in cities rather than on farms, meant that nuclear families were less likely to live close to extended family; therefore, mothers lacked communal parenting support they might have found in earlier times. (Atkinson, 2022). Migration to cities weakened many of the informal support networks that had traditionally assisted mothers, while overcrowding, poverty, and high rates of infant mortality generated new concerns about child health and family welfare. For many parents, particularly those raising children in rapidly expanding urban environments, questions that had once been addressed within the family increasingly became matters of public concern and professional intervention. In response,

physicians, social reformers, and public-health authorities sought to provide guidance on what they considered proper infant care. Parenting manuals, government publications, maternal welfare initiatives, and health campaigns brought expert advice directly into the home, offering recommendations on feeding, hygiene, sleeping routines, and child discipline. These developments occurred alongside growing concern over infant nutrition and feeding practices, which increasingly became subjects of medical supervision and public-health intervention. Two sets of public health campaigns resulted. One, designed almost solely by local public health officials, urged mothers to breastfeed for as long as possible. The other, involving public health departments and a much wider array of supporters, including concerned citizens, municipal government, medical charities, settlement houses, private physicians, and newspapers, crusaded for clean cows' milk. Calling pure cows' milk "one of the essentials of daily living," urban newspapers decried "the diluted, adulterated, and harmful quality of milk" common to US cities. (Wolf, 2003). These publications did far more than communicate medical information. As Atkinson (2022) argues, they also reflected contemporary assumptions about authority, gender roles, class relations, and the characteristics of the ideal family. Advice literature therefore offers historians a valuable opportunity to examine how scientific knowledge was translated into everyday practice and how broader social values entered the intimate sphere of family life. Within this expanding world of expert advice, few individuals exerted greater influence on American childrearing practices than the pediatrician Luther Emmett Holt and the psychologist John B. Watson.

Holt's *The Care and Feeding of Children*, first published in 1894, quickly became one of the most influential child-care manuals in the United States and remained a standard reference for decades. Its popularity reflected a growing desire for authoritative guidance at a time when concerns about infant mortality, health, and proper child development were widespread. Holt advocated regularity, discipline, hygiene, and close adherence to prescribed routines. Feeding, sleeping, and bodily functions were expected to follow carefully regulated schedules, and mothers were encouraged to trust professional recommendations rather than personal judgment or

family tradition (Holt, 1923/2005). In Holt's vision, successful childrearing depended on consistency, self-control, and respect for expert authority. Several decades later, Watson carried many of these assumptions into the emerging field of behaviorist psychology. In *Psychological Care of Infant and Child* (1928), he argued that children's behaviour was shaped primarily by their environment and that parents played a decisive role in that process. Effective parenting, in his view, required emotional restraint, predictable routines, and the systematic management of behaviour (Watson, J. B. (1928). His warnings against excessive affection became particularly controversial, but they were rooted in a broader belief that children should be guided through discipline and conditioning rather than emotional indulgence. As later observers noted, the search for routine and predictability in child training reflected wider efforts to bring order and regularity into family life during the early twentieth century (Stendler, 1950). While Holt focused primarily on physical care and Watson on psychological development, both presented childrearing as a task that could be improved through scientific principles and expert supervision.

Recent scholarship has challenged the tendency to view these childrearing theories as straightforward applications of medical or psychological knowledge. Historians increasingly argue that parenting advice cannot be separated from the social and cultural environments in which it was produced. Manuals written by experts did more than offer guidance on feeding schedules, sleeping habits, or child discipline; they also conveyed assumptions about authority, citizenship, productivity, gender relations, and the proper organization of family life (Atkinson, 2022). In this sense, childrearing literature served not only as a source of practical instruction but also as a vehicle through which broader social values were communicated to parents. This perspective has encouraged scholars to examine parenting advice as a historical source in its own right. Rather than asking whether experts were correct, historians have become increasingly interested in what their recommendations reveal about the societies that produced them. Russell's (1985) study of nineteenth-century infant-care practices demonstrates that efforts to regulate children's bodies were often linked to wider concerns regarding discipline, control, restraint, and efficiency. Similarly, studies of

scientific motherhood have shown how expert advice reflected contemporary ideas about maternal responsibility and the proper relationship between families and professional authority (Apple, 2014). Seen from this perspective, infant-care theories emerge not simply as responses to children's biological needs but as products of specific historical circumstances and cultural priorities.

The period between Holt's first publications in the 1890s and Watson's influential manual in 1928 coincided with a broader transformation in American society. These were the decades of Progressive Era reform, when faith in science, expertise, and rational planning reached unprecedented levels. Across a wide range of institutions, from factories and schools to hospitals and government agencies, efficiency, standardization, and professional management were increasingly promoted as solutions to social problems. The belief that human behavior could be observed, measured, and improved through scientific methods shaped not only public institutions but also expectations about family life and child development. Growing concern for maternal and infant welfare culminated in initiatives such as the Sheppard-Towner Act of 1921, which represented one of the earliest federal efforts to improve maternal and child health through education and public-health intervention (Schlesinger, 1967). Childrearing did not remain outside these developments. Many experts came to view infancy as a critical stage during which future habits, character, and behavior could be shaped. Feeding schedules, sleeping routines, toilet training, hygiene practices, and even parental expressions of affection were increasingly presented at that time. The popularity of expert advice during this period suggests that many parents found such guidance persuasive in a rapidly changing society where traditional sources of authority appeared increasingly uncertain.

### **Methodology**

This article employs a qualitative historical methodology to examine the development of infant-care theories in the United States between 1890 and 1930. Rather than evaluating the medical or psychological validity of childrearing recommendations, the study investigates how infant-care advice reflected broader social, cultural, and intellectual transformations associated with industrialization, urbanization, Progressive Era reform, and the growing authority of scientific

expertise. The analysis is guided by the historiographical concept of scientific motherhood, which emphasizes the increasing reliance of mothers on professional knowledge and expert guidance in matters of childrearing.

The research is based on the analysis of both primary and secondary sources. The principal primary sources are Luther Emmett Holt's *The Care and Feeding of Children* (1923/2005) and John B. Watson's *Psychological Care of Infant and Child* (1928). These texts are examined not as medical manuals to be assessed according to contemporary standards but as historical documents that reveal prevailing assumptions about childhood, motherhood, authority, discipline, emotional expression, and the role of expert knowledge in family life. Their recommendations are analyzed as representations of broader cultural values and social expectations rather than as isolated medical or psychological prescriptions. To contextualize these primary sources, the study draws upon scholarship in the history of childhood, medicine, parenting advice, and scientific motherhood. Particular attention is given to the works of Apple (2014), Atkinson (2022), Bigelow and Morris (2001), Russell (1985), Wolf (2003) etc. These studies provide the historiographical framework necessary to situate Holt's and Watson's writings within wider developments such as the professionalization of pediatrics, the expansion of public-health initiatives, the emergence of behaviorist psychology, and the increasing involvement of state institutions in maternal and child welfare.

The analysis follows a contextual and thematic approach commonly employed in social and cultural history. Recurring themes identified in the primary texts include scheduled feeding, sleep regulation, toilet training, emotional restraint, parental authority, and the regulation of infant behavior. These themes are examined in relation to broader historical processes, including the rise of scientific motherhood, the institutionalization of pediatric medicine, the expansion of maternal and infant welfare programs, and Progressive Era ideals of efficiency, regularity, and social improvement. By comparing Holt's and Watson's recommendations and situating them within their historical context, the study seeks to identify both continuities and changes in expert approaches to infant care during the transition from late nineteenth-century pediatrics to early twentieth-century behaviorist

psychology. This study does not attempt to reconstruct the experiences of individual mothers or measure the practical impact of expert advice on everyday family practices. Nor does it seek to determine whether Holt's or Watson's recommendations were scientifically correct. Instead, its purpose is to examine how influential childrearing theories reflected contemporary concerns about health, discipline, citizenship, gender roles, and social order. In doing so, the article approaches infant-care manuals as historical sources that illuminate the relationship between expert knowledge and the wider social transformations that characterized modern American society.

## Results

*Regulating feeding, sleep, and bodily functions.* A central finding emerging from the analysis of Holt's and Watson's manuals is the importance assigned to routine in the organization of infant life. Both authors regarded regularity as essential for healthy development and recommended that feeding, sleeping, and bodily functions follow predetermined schedules rather than the spontaneous demands of the child. Holt repeatedly emphasized that feeding should occur at fixed intervals and that regular habits should be established from the earliest months of life. Sleep was similarly subjected to strict regulation, with infants expected to adapt to scheduled periods of rest rather than dictate their own routines (Holt, 1923/2005). Watson adopted a comparable approach several decades later, arguing that orderly feeding, sleeping, and daily routines were fundamental to successful childrearing (Watson, 1928). The regulation of bodily functions extended beyond feeding and sleep. Holt encouraged the early establishment of bowel regularity and recommended toilet training practices that began during infancy (Holt, 1923/2005). Watson likewise viewed the development of regular habits as an essential component of child management. In both texts, bodily functions were not treated as natural processes that would develop spontaneously but as behaviors that could and should be shaped through routine and repetition.

*Managing infant behavior and dependency.* The analysis further reveals that both authors were concerned with limiting dependency and discouraging behaviors perceived as undesirable. Holt warned against excessive rocking, carrying, or entertaining infants and argued

that children should not become accustomed to constant adult attention (Holt, 1923). Crying was frequently interpreted as a learned behavior rather than an immediate expression of need, and parents were advised not to reinforce such habits through excessive responsiveness. Watson developed this position more systematically within a behaviorist framework. He maintained that many problematic behaviors resulted from parental responses and could therefore be modified through consistent environmental control (Watson, 1928). The child was expected to learn self-control, patience, and independence through carefully managed routines. Across both texts, the desired outcome was an infant capable of adapting to externally imposed expectations rather than one whose daily life was organized around immediate desires or emotional demands.

*Affection and emotional control.* One of the most striking findings concerns the treatment of affection and emotional expression. Although Holt generally focused on physical care, he also cautioned against excessive stimulation and unnecessary handling of infants. He advised that young babies should not be excessively played with and that parental interactions should remain moderate and controlled (Holt, 1923/2005). Watson addressed this issue much more directly. He argued that excessive affection could foster emotional dependency and interfere with healthy development. Parents were instructed to limit physical demonstrations of affection and to maintain emotional distance in their interactions with children (Watson, 1928). Affection was therefore treated not simply as an expression of parental feeling but as a behavior requiring regulation and discipline. Compared with Holt, Watson expanded the scope of regulation from the management of bodily routines to the management of emotional relationships.

*Expert authority and maternal practice.* A further finding concerns the prominent role assigned to professional expertise. Both manuals positioned expert knowledge as the foundation of proper childrearing. Holt's text presented itself as a guide derived from medical experience and institutional practice, offering detailed instructions on feeding, sleep, hygiene, and infant management (Holt, 1923/2005). Mothers were expected to follow recommendations grounded in pediatric knowledge rather than rely exclusively on inherited customs or personal judgment. Watson similarly presented his advice as

scientifically informed guidance based on psychological principles. His recommendations were framed as objective and systematic rather than intuitive or experiential (Watson, 1928). In both manuals, successful childrearing depended upon adherence to expert instruction, and mothers were assigned responsibility for implementing prescribed routines within the home.

*Continuities and differences between Holt and Watson.* The comparative analysis reveals significant continuities between Holt and Watson despite their different professional backgrounds. Both emphasized routine, regularity, self-control, and the regulation of infant behavior. Both viewed child development as something that could be shaped through systematic intervention, and both assigned parents the task of establishing disciplined habits from an early age. Important differences nevertheless emerged. Holt's recommendations focused primarily on the management of the infant body through feeding schedules, sleep routines, hygiene, and toilet training (Holt, 1923/2005). Watson retained many of these concerns but extended them into the psychological sphere, emphasizing emotional restraint, behavioral conditioning, and the management of parent-child relationships (Watson, 1928). The findings therefore suggest a shift from predominantly physiological regulation toward a broader concern with psychological and emotional development, while maintaining a common commitment to routine, discipline, and expert-guided childrearing.

### **Discussions**

The findings of this study suggest that infant-care theories in the United States between the late nineteenth century and the interwar period should be understood as part of a broader reorganization of authority within family life. Rather than representing merely technical recommendations about feeding, sleeping, or hygiene, the childrearing systems developed by Holt and Watson reflected a growing belief that the healthy development of children required scientific guidance and professional oversight. Historians have described this process through the concept of scientific motherhood, whereby mothers remained responsible for children's welfare while increasingly relying upon physicians, psychologists, and other experts to determine appropriate childcare practices (Apple, 2014). The evidence examined in this study supports this interpretation. In both

manuals, maternal competence was measured less by instinct or inherited knowledge than by the ability to implement expert-approved methods consistently and correctly. The growing acceptance of expert authority was not simply the consequence of professional ambition. It emerged within a society confronting persistent public-health challenges, particularly high rates of infant illness and mortality. Under such circumstances, medical advice appeared to many families not merely as an abstract source of authority but as a practical means of protecting infant health and survival. The increasing influence of pediatric expertise therefore reflected both the expansion of professional authority and parental concerns regarding child welfare in a rapidly changing society (Golden, 2018).

This shift in authority occurred within a society undergoing rapid economic and social transformation. Industrialization, urbanization, mass education, and the expansion of public-health institutions contributed to a climate in which scientific expertise increasingly became associated with progress, efficiency, and political and social changes. Within this context, parenting manuals acquired significance beyond their practical advice. As Atkinson argues, such texts often reflected prevailing middle-class assumptions about family life, discipline, and social order rather than purely scientific discoveries about child development (Atkinson, 2022). The findings presented here reinforce that interpretation. The recommendations found in Holt's and Watson's manuals promoted ideals of regularity, predictability, self-control, and discipline that mirrored broader cultural values associated with modern industrial society. Urbanization further altered the conditions under which mothers acquired childcare knowledge. As families increasingly moved into urban environments, traditional networks of advice rooted in extended family and local communities became less central. Childcare manuals, health pamphlets, clinics, and visiting nurses increasingly supplemented or replaced forms of knowledge that had previously been transmitted through kinship networks. Expert literature thus became attractive not only because it claimed scientific legitimacy but also because it addressed the practical uncertainties of modern family life (Hays, 1996). The findings also indicate that the regulation of infancy extended beyond concerns for physical health. While the immediate purpose of scheduled feeding, controlled sleep routines,

and early habit formation was presented as medical or developmental, these practices simultaneously encouraged broader forms of behavioral regulation. The child was expected to adapt to externally imposed routines, to tolerate delay, and to develop self-discipline from an early age. In this respect, infant-care advice functioned not only as health guidance but also as a mechanism through which particular social values were transmitted into everyday family life. The importance attached to regularity and habit formation suggests that childcare became one of the earliest sites where modern expectations of discipline and self-regulation were cultivated. These ideals reflected more than concerns about child development alone. The emphasis on regularity, predictability, and self-control closely resembled values increasingly associated with industrial modernity, where schools, workplaces, and bureaucratic institutions depended upon disciplined behavior and the management of time. Childcare routines therefore helped socialize children into broader cultural expectations that extended well beyond the nursery itself (Stearns, 2003).

The broader material and cultural environment further support this interpretation. Russell's study of nineteenth-century child-care artifacts demonstrates that objects such as cribs, barriers, walkers, and other nursery equipment reflected assumptions about control, restraint, and independence (Russell, 1985). When considered alongside the recommendations identified in Holt's manual, these developments suggest that the regulation of infancy was not confined to medical advice alone but was reinforced through the physical organization of domestic space. Expert literature and material culture therefore worked together in shaping new expectations regarding appropriate childcare practices. The comparison between Holt and Watson reveals both continuity and change in the evolution of expert childrearing advice. The findings show substantial continuity in their shared emphasis on routine, order, self-control, and the management of behavior. However, they also reveal an important shift in focus. Holt's recommendations concentrated primarily on regulating bodily functions and establishing physical habits, whereas Watson extended similar principles into the realm of emotional and psychological development. In Watson's framework, not only feeding and sleeping but also affection, attachment, and emotional expression became

subjects of expert regulation. This transition suggests a broader historical movement from the management of the infant body toward the management of personality and emotional life. At the same time, the findings support recent historiographical efforts to place Watson within the intellectual context of his era rather than portraying him as a uniquely extreme figure. Bigelow and Morris argue that many aspects of Watson's recommendations were consistent with wider expert opinion during the 1920s, particularly regarding routine, prevention, and parental control (Bigelow & Morris, 2001). The comparison undertaken in this study supports that conclusion. Several practices commonly associated with Watson were already present in earlier pediatric literature, including scheduled feeding, controlled responses to crying, and the importance of habit formation. Watson's distinctive contribution was therefore not the invention of disciplinary childrearing itself but the application of behaviorist psychology to existing patterns of expert advice. His rejection of overt affection may have represented a more radical position, yet it emerged within a broader culture that already valued emotional restraint and parental authority.

The findings likewise highlight the role of public institutions in reinforcing expert authority. The expansion of child-welfare programs, public-health campaigns, and educational initiatives contributed to the wider dissemination of childcare advice and helped establish professional expertise as a legitimate source of guidance for families. Studies of the Children's Bureau and the Sheppard-Towner Act demonstrate how state institutions participated in the circulation of infant-care knowledge and encouraged increasingly standardized approaches to childcare (Atkinson, 2022). Consequently, the influence of expert childrearing literature cannot be understood solely through individual authors. Holt's and Watson's manuals formed part of a broader network of institutions, professionals, and reform movements that collectively sought to shape family practices. The growing involvement of public institutions reflected a broader transformation in the social significance of childhood. Children increasingly came to be viewed not only as members of individual families but also as future citizens whose health and development carried implications for society as a whole. Maternal and child welfare programs therefore formed part of wider reform efforts

concerned with public health, social efficiency, and national progress (Muncy, 1991). The gendered dimensions of this process are equally significant. Although mothers remained the primary audience for infant-care advice, the findings suggest that maternal responsibility expanded at the same time that maternal autonomy became increasingly constrained. Scientific motherhood elevated the importance of mothers while simultaneously encouraging them to defer to professional expertise (Apple, 1995). In this respect, childcare manuals functioned not only as educational tools but also as instruments through which authority over child development was progressively transferred from traditional female experience to professional knowledge. Barker's work further demonstrates that these developments were closely connected to broader struggles over professional jurisdiction and authority within maternal and child welfare programs (Barker, 1998).

This process generated a notable paradox. Mothers were increasingly held responsible for children's physical, emotional, and moral development, yet the standards used to evaluate maternal competence were increasingly defined by experts rather than by mothers themselves. Scientific motherhood thus expanded maternal obligations while simultaneously narrowing the range of practices considered acceptable or legitimate (Hulbert, 2003). Nevertheless, the findings do not support a simple narrative of professional domination. Historians have shown that mothers were not passive recipients of expert advice and that responses to scientific childrearing varied according to class, education, ethnicity, and local circumstances (Atkinson, 2022). The evidence therefore suggests that expert authority was influential but never absolute. Parenting manuals established ideals and standards, yet the ways in which those standards were interpreted and implemented remained diverse. Their significance lies less in determining precisely how parents behaved than in redefining what counted as legitimate and respectable childrearing.

Taken together, the findings indicate that infant-care theories between 1890 and 1930 were closely intertwined with broader transformations in American society. The recommendations advanced by Holt and Watson reflected changing relationships between family life, professional expertise, public health, and state intervention. More

importantly, they reveal how childhood became a central arena in which modern ideas about discipline, scientific authority, and social progress were negotiated. Rather than viewing these manuals solely as medical or psychological texts, they are perhaps best understood as historical documents that illuminate the changing cultural meanings of motherhood, childhood, and expertise in modern America. Although many of the specific recommendations advanced by Holt and Watson have subsequently been challenged by developmental psychology and pediatric research, their historical significance lies less in the accuracy of their prescriptions than in their role in establishing expert-guided childrearing as a cultural norm.

Ultimately, the rise of scientific motherhood represented not simply a transformation in parenting techniques but a broader transfer of authority from inherited family knowledge toward professional expertise. Childrearing increasingly became an activity expected to be justified through scientific evidence, expert guidance, and institutional standards rather than tradition alone. In this sense, the enduring significance of Holt and Watson lies not only in their recommendations but also in their contribution to redefining who possessed the authority to determine what constituted good parenting.

### **Conclusion**

This study has examined the infant-care theories of Luther Emmett Holt and John B. Watson within the broader social and intellectual transformations that reshaped American society between the late nineteenth century and the interwar period. Through a comparative analysis of their childrearing manuals, it has shown that infant care increasingly became organized around the principles of scientific expertise, routine, discipline, and professional authority. Although Holt and Watson approached child development from different disciplinary traditions, pediatrics and psychology, their recommendations shared a common assumption: that healthy childhood development depended upon the systematic regulation of behavior through expert-guided practices rather than maternal instinct or inherited family knowledge.

The findings further demonstrate that these theories were closely connected to wider historical developments, including industrialization, urbanization, public-health reform, and the professionalization of knowledge. They also emerged within a society

increasingly concerned with infant survival, social efficiency, and the challenges created by rapidly changing family structures. As traditional networks of childcare knowledge weakened, expert guidance came to be viewed as both a practical and legitimate means of navigating the uncertainties of modern parenthood. Infant-care advice functioned not merely as a set of practical recommendations for mothers but also as a mechanism through which broader social values entered domestic life. Through feeding schedules, sleep routines, habit formation, and the regulation of emotional expression, childcare became increasingly associated with order, predictability, self-control, and efficiency. In this sense, the rise of scientific motherhood represented not only a transformation in parenting practices but also a redefinition of the relationship between families and professional expertise. At the same time, the study suggests that the historical significance of Holt and Watson lies less in the accuracy of their recommendations than in the broader cultural transformation they helped to advance. Historians have demonstrated that mothers did not simply accept expert advice passively; they interpreted, adapted, and sometimes resisted professional recommendations according to their own circumstances (Apple, 2014) Nevertheless, the growing authority of experts fundamentally altered the standards by which good parenting was judged. Childrearing increasingly became an activity expected to be informed by scientific knowledge and professional guidance.

From a contemporary perspective, many of the specific recommendations advanced by Holt and Watson have been substantially revised or abandoned. Rigid feeding schedules, very early toilet training, limited responsiveness to infant crying, and restrictions on parental affection are no longer widely supported within developmental psychology or modern pediatric practice. Yet their broader legacy remains remarkably resilient. Contemporary parents continue to seek guidance from specialists, consult expert literature, and justify parenting decisions through scientific evidence. As Faircloth (2010) observes, appeals to what “science says is best” remain a powerful source of legitimacy in parental decision-making. In this respect, the intellectual foundations of scientific motherhood continue to shape contemporary parenting culture, even when the

specific advice of early twentieth-century experts has changed dramatically.

Ultimately, the history of infant-care theories between 1890 and 1930 demonstrates how childhood became a central arena through which modern societies negotiated questions of authority, expertise, gender, and social progress. The rise of scientific motherhood reflected not only confidence in science but also a broader reorganization of authority within family life, as professional expertise increasingly displaced inherited forms of childcare knowledge. The enduring importance of Holt and Watson lies not in the lasting validity of their prescriptions but in their contribution to a broader historical shift: the transformation of parenting from a domain primarily grounded in family tradition into one increasingly guided by professional knowledge. Understanding that transformation helps illuminate not only the history of childhood and motherhood but also the continuing influence of expert authority in modern family life.

### References

- Apple, R. D. (1995). Constructing mothers: Scientific motherhood in the nineteenth and twentieth centuries. *Social History of Medicine*, 8(2), 161–178. <https://doi.org/10.1093/shm/8.2.161>
- Apple, R. D. (2014). Medicalization of motherhood: Modernization and resistance in an international context. *Journal of the Motherhood Initiative for Research and Community Involvement*, 5(1), 115–126. <https://jarm.journals.yorku.ca/index.php/jarm/article/view/39323>
- Atkinson, V. Sue. (2022). Every Picture Tells a Story: Parenting Advice Books Provide a Window on the Past. *Social Sciences*, 11, 11. <https://doi.org/10.3390/socsci11010011>
- Barker, K. K. (1998). Women physicians and the gendered system of professions: An analysis of the Sheppard-Towner Act of 1921. *Work and Occupations*, 25(2), 229–255. <https://doi.org/10.1177/0730888498025002003>
- Bigelow, K. M., & Morris, E. K. (2001). John B. Watson's advice on child rearing: Some historical context. *Behavioral Development Bulletin*, 10(1), 26–30. <https://doi.org/10.1037/h0100477>
- Faircloth, C. (2010). “What science says is best”: Parenting practices, scientific authority and maternal identity. *Sociological Research Online*, 15(4), 85–98. <https://doi.org/10.5153/sro.2175>
- Golden, J. (2018). *Babies made us modern: How infants brought America into the twentieth century*. Cambridge University Press. <https://doi.org/10.1017/9781108227308>

- Hays, S. (1996). *The cultural contradictions of motherhood*. Yale University Press.
- Holt, L. E. (1923). *The care and feeding of children* (15th ed.). D. Appleton and Company. (Original work published 1894). <https://archive.org/search?query=Luther+Emmett+Holt+The+Care+and+Feeding+of+Children>
- Hulbert, A. (2003). *Raising America: Experts, parents, and a century of advice about children*. Alfred A. Knopf.
- Lemons, J. S. (1969). The Sheppard-Towner Act: Progressivism in the 1920s. *The Journal of American History*, 55(4), 776–786. <https://doi.org/10.2307/1900145>
- Muncy, R. (1991). *Creating a female dominion in American reform, 1890–1935*. Oxford University Press.
- Reese, H. W. (2001). Watson's social philosophy and activism. *Behavioral Development Bulletin*, 10(1), 17–22. <https://doi.org/10.1037/h0100477>
- Russell, H. (1985). Training, restraining and sustaining: Infant and child care in the late nineteenth century. *Material History Review*, 21, 1–12. <https://journals.lib.unb.ca/index.php/MCR/article/view/17242>
- Schlesinger, E. R. (1967). The Sheppard-Towner era: A prototype case study in federal-state relationships. *American Journal of Public Health and the Nation's Health*, 57(6), 1034–1040. <https://doi.org/10.2105/AJPH.57.6.1034>
- Stearns, P. N. (2003). *Anxious parents: A history of modern childrearing in America*. New York University Press.
- Stendler, C. B. (1950). Sixty years of child training practices. *The Journal of Pediatrics*, 36(2), 122–134. <https://pubmed.ncbi.nlm.nih.gov/15400010/>
- Watson, J. B. (1928). *Psychological care of infant and child*. W. W. Norton & Company. <https://archive.org/search?query=Psychological+Care+of+Infant+and+Child+Watson>
- Wolf, J. H. (2003). Low breastfeeding rates and public health in the United States. *American Journal of Public Health*, 93(12), 2000–2010. <https://doi.org/10.2105/AJPH.93.12.2000>

**THE INFLUENCE OF EXTERNAL ENVIRONMENTAL STIMULI  
ON THE PHYSICAL AND COGNITIVE DEVELOPMENT OF  
CHILDREN AGED 0–3 YEARS**

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**THE INFLUENCE OF EXTERNAL ENVIRONMENTAL STIMULI  
ON THE PHYSICAL AND COGNITIVE DEVELOPMENT OF  
CHILDREN AGED 0–3 YEARS**

**Abstract**

The cognitive and communicative development of children aged 0–3 represents a critical period characterized by rapid brain growth and fundamental learning processes. During this stage, infants and toddlers acquire essential cognitive abilities such as attention, memory, perception, problem-solving, and early language skills. Piaget defines this stage as the sensorimotor period, in which learning occurs primarily through sensory experiences and motor actions. Likewise, during this period, children begin to form two important concepts: self-perception and social awareness. By the end of this phase, most children develop object permanence and begin to form basic symbolic thinking.

The aim of this paper is to identify and analyze external stimuli—such as engagement in group play, dyadic play, the influence of colours, and other environmental factors—that serve as positive contributors to children’s cognitive and communicative development.

Current challenges in supporting optimal cognitive development include socio-economic disparities, limited access to quality early childhood education, lack of parental support or awareness, and exposure to unfavorable environments such as neglect or stress. Furthermore, the increasing use of digital technology in early childhood raises concerns regarding its impact on attention, social interaction, and language acquisition.

Early intervention, responsive caregiving, and stimulating environments are essential to overcoming these challenges and fostering healthy cognitive development during this foundational stage of life.

**Keywords:** Cognitive development, language development, self-perception, social-perception, external stimuli.

### NDIKIMI I STIMUJVE TË JASHTËM MJEDISORË NË ZHVILLIMIN FIZIK DHE KOGNITIV FËMIJËVE TË MOSHËS 0–3 VJEÇ

#### Abstrakt

Zhvillimi kognitiv dhe komunikues i fëmijëve të moshës 0–3 vjeç përfaqëson një periudhë kritike, e karakterizuar nga rritje e shpejtë e trurit dhe procese themelore të të nxënës. Gjatë kësaj faze, foshnjat dhe fëmijët e vegjël fitojnë aftësi thelbësore kognitive si vëmendja, kujtesa, perceptimi, zgjidhja e problemeve dhe aftësitë e hershme gjuhësore. Piaget e përkufizon këtë fazë si periudhën sensomotorike, në të cilën të nxënës ndodh kryesisht përmes përvojave shqisore dhe veprimeve motorike (Piaget, 1957-1977-1978). Po ashtu, gjatë kësaj periudhe, fëmijët fillojnë të formojnë dy koncepte të rëndësishme: vetë-perceptimin dhe ndërgjegjësimin social. Në fund të kësaj faze, shumica e fëmijëve zhvillojnë qëndrueshmërinë e objektit dhe fillojnë të formojnë mendimin simbolik bazë.

Qëllimi i këtij punimi është të identifikojë dhe të analizojë stimujt e jashtëm — si përfshirja në lojëra në grup, lojëra dy-palëshe, ndikimi i ngjyrave dhe faktorë të tjerë mjedisorë — të cilët shërbejnë si kontribuues pozitivë në zhvillimin kognitiv dhe komunikues të fëmijëve.

Sfidat aktuale në mbështetjen e zhvillimit optimal kognitiv përfshijnë pabarazitë socio-ekonomike, aksesin e kufizuar në arsim cilësor të fëmijërisë së hershme, mungesën e mbështetjes ose ndërgjegjësimin prindëror, si dhe ekspozimin ndaj mjedisëve të pafavorshme si neglizhimi apo stresi. Për më tepër, përdorimi në rritje i teknologjisë digjitale në fëmijërinë e hershme ngre shqetësime lidhur me ndikimin e saj në vëmendje, ndërveprimin social dhe përvetësimin e gjuhës.

Ndërhyrja e hershme, kujdesi i ndjeshëm dhe mjediset stimuluese janë thelbësore për kapërcimin e këtyre sfidave dhe për nxitjen e një zhvillimi të shëndetshëm kognitiv gjatë kësaj faze themelore të jetës.

**Fjalë kyçe:** zhvillimi kognitiv, zhvillimi gjuhësor, vetë-perceptimi, perceptimi social, stimujt të jashtëm.

The development of motor and socio-emotional skills during early childhood has been a subject of study and scholarly discussion since the early stages of scientific research. The primary reason for this focus is that the changes occurring during this period are fundamental to a child's physical and psychological development. For this reason, exposure to specific behaviours, objects, and surrounding environments becomes a determining factor in these developmental processes. In this context, continuous interaction with the social and physical environment directly influences the formation of basic learning and adaptive skills. Furthermore, these early experiences lay the foundation upon which later academic and social competencies are built.

Play and the external environment are widely regarded as key factors in the holistic development of children during early childhood. Various strands of literature indicate that children's engagement in play activities, as well as exposure to richly stimulating environments, contributes significantly to cognitive, motor, social, and emotional development (Avril Johnstone et al., 2022).

Through interaction with their environment and participation in play, children develop essential skills for learning, communication, and problem-solving. In particular, outdoor activities support the development of motor skills, promote physical well-being, and enhance psychosocial health. In this context, the creation of stimulating environments and the encouragement of play constitute essential components in promoting optimal child development.

According to Piaget, play initially emerges as a simple form of action assimilation, in which the child repeats behaviours for functional pleasure rather than for any practical purpose. Over time, these adaptive actions begin to be reproduced for their own enjoyment and gradually evolve into play. Subsequently, play progresses from simple sensorimotor activities to repetitive rituals and later develops into symbolic play, in which the child engages in pretend actions and uses objects as representations of something else (e.g., pretending to eat, sleep, or using one object to represent another).

In this way, play evolves from practical assimilative actions toward increasingly symbolic forms that become progressively detached from immediate reality.

**Summary of infant motor actions (Piaget, 1951)**

| PHASE                           | TYPE OF BEHAVIOUR                           | KEY CHARACTERISTICS                           | HOW PLAY OCCURS                                           |
|---------------------------------|---------------------------------------------|-----------------------------------------------|-----------------------------------------------------------|
| 1. Reflexes                     | Reflexive behaviour                         | Feeding, sucking, basic responses             | Rarely play; only simple functional exercises             |
| 2. Primary circular reactions   | Body-based actions (hands, voice, movement) | Repetition for functional pleasure            | Simple play begins (pleasure from action itself)          |
| 3. Secondary circular reactions | Object-related actions                      | Exploration and manipulation of objects       | Becomes play when exploratory purpose fades               |
| 4. Coordination of schemes      | Application of schemes to new situations    | Problem-solving and combinations of actions   | Play occurs when actions are performed for their own sake |
| 5. Tertiary circular reactions  | Experimentation and new combinations        | Variations and “trial-and-effect” experiments | Transforms into play and motor rituals                    |
| 6. Symbolic play                | “Make-believe”, imagination                 | Uses objects as representations (symbols)     | Full symbolic play (pretending, role-play)                |

Lev Vygotsky also considers play a highly important element in a child’s cognitive and social development (Vygotsky, 1978).

According to him, through play, the child activates what he terms the “Zone of Proximal Development” (ZPD), as during play the child is able to perform actions and engage in thinking at a higher level than would be possible independently, without assistance or interaction with others. He further emphasizes that the development of thinking and language in children occur simultaneously and are not separate processes. Rather, he views them as interdependent and closely interconnected. According to his theory, language is initially used in social interaction for communication purposes and is later internalized, becoming an inner form that functions as thought (Vygotsky, as cited in Kozulin, 1986).

Similarly, Montessori (1912; 1936; 1949) views the environment as the most influential factor in a child’s development across physical, cognitive, and emotional domains. According to her, this environment should facilitate the child’s developmental process rather than hinder or restrict it. Only in this way can a space be created that allows the child’s energies to unfold freely, providing the necessary tools for emerging activities. In many cases, the adult is also part of the child’s environment; therefore, the adult must adapt to the child’s needs so as not to become an obstacle or replace the child’s active engagement in essential developmental experiences (Montessori, 1949). For this reason, children should be supported and exposed as much as possible to environments where physical activity, play, and similar experiences occur frequently.

Furthermore, children’s participation in activities such as play, dancing, and singing contributes to stress reduction, as these activities promote the release of endorphins in the body, thereby enhancing overall well-being (UNICEF, 2026). Exposure to play-based experiences is so significant that even short-term engagement in such activities can produce positive outcomes. Thus, physical activity is considered a key component of early childhood development.

Similarly, other scholars have identified physical activity as a significant determinant of development and health in early childhood (Pfeiffer & Clevenger, 2025). Empirical findings indicate that, in infants, physical activity is associated with more favourable levels of adiposity (BMI, i.e., the amount of fat accumulated in the body), as well as improvements in motor and cognitive development. In young children, it is linked to benefits in skeletal health, while in preschool-

aged children it contributes to optimising body composition, enhancing motor skill development, improving psychosocial health, and strengthening cardiometabolic indicators. These findings underscore the importance of promoting physical activity as a fundamental component of holistic child development (Pfeiffer & Clevenger, 2025).

Interventions focused on the development of fundamental motor skills in preschool children significantly enhance motor competence, particularly object control. However, their effects on physical fitness and movement behaviours remain limited. These results highlight the importance of early motor skill development and the need for further research on the role of socio-ecological factors and more effective intervention strategies (Alonso-Martínez et al., 2025).

Furthermore, Felfe and Lalive, as well as Lemos, Avigo, and Barela, emphasise that children's motor skills can be developed through play-based physical activities in early childhood education settings, where motor development is an explicit curricular objective. Such activities contribute to strengthening coordination, balance, and overall control of body movements. Through both structured and free play, children gradually enhance their motor abilities in a natural and enjoyable manner (Felfe & Lalive, 2018; Lemos, Avigo & Barela, 2012).

Thus, through structured and spontaneous play, children develop their motor skills in a continuous and natural way. These activities enable them to experience and practice a variety of movements within a safe and motivating environment. Gradually, they gain greater confidence in using their bodies and performing different physical actions. As a result, overall coordination, balance, and motor control are improved.

## CONCLUSIONS

- The first years of life (0–3 years) represent a critical period for cognitive and communicative development, during which external environmental stimuli play a decisive role in shaping foundational learning and social interaction skills.
- Theoretical and empirical evidence indicates that play constitutes a fundamental mechanism for the development of cognitive, linguistic, motor, and social processes in early childhood. Children's engagement in play activities and exposure to richly

stimulating environments contribute positively to cognitive, emotional, social, and physical development.

- The theories of Piaget, Vygotsky, and Montessori emphasise that child development occurs through active interaction with the environment, play, and meaningful social relationships. Stimulating and supportive environments foster the development of language, symbolic thinking, creativity, self-perception, and social awareness.
- Physical activity and participation in activities such as play, dance, and singing have a positive impact on psychological well-being, motor development, and overall child health.
- Factors such as socio-economic inequalities, lack of early stimulation, neglect, and uncontrolled use of digital technology may limit optimal cognitive and communicative development.
- Consequently, the creation of enriched environments, the promotion of play, and early educational interventions should be considered priorities for supporting the holistic development of children in the early years of life.

## REFERENCES

1. Alonso-Martínez, L., Ramírez-Vélez, R., García-Hermoso, A., Izquierdo, M., & Alonso-Martínez, A. M. (2025). Improving Preschool Fundamental Motor Skills Through Interventions Targeting 24-Hour Movement Behaviors and Socioecological Factors: A Meta-Analysis. *National Library of Medicine*, 1076-1085.
2. Avril Johnstone; Paul McCrorie; Rita Cordovil; Ingunn Fjørtoft; Susanna Iivonen; Boris Jidovtseff 6, Frederico Lopes; John J Reilly; Hilary Thomson; Valerie Wells; Anne Martin. (2022). Nature-Based Early Childhood Education and Children's Social, Emotional and Cognitive Development: A Mixed-Methods Systematic Review. *National Journal of Environmental Research and Public Health; Library of Medicine*.
3. Claudia Felfe & Rafael Lalive. (2018). Does early child care affect children's development? *Journal of Public Economics*, 33-53.

4. Anderson A. Lemos, Eric L. Avigo and Jose A. Barela. (2012). Physical education in kindergarten promotes fundamental motor skill development. *Advances in Physical Education 2012*, 17-21.
5. Maria Montessori. (1912). *The Montessori Method. Translated from the italian by anne e. George*. New york: second edition, frederick a. Stokes company.
6. Maria Montessori. (1949). *The Absorbent Mind*. OSMANIA UNIVERSITY LIBRARY.
7. Karin APfeiffer and Kimberly Clevenger. (2025). Teacher-report of where preschool-aged children play and are physically active in indoor and outdoor learning centers. *Journal of Early Childhood Research, SAGE, Publication. Michigan USA*.
8. Jean Piaget. (1957-1977-1978). *The Origins of Intelligence in Children*. Cansas: Public Library, -translated by Margaret Cook.
9. Lev Vigotsky. (1978). *Mind in Society; The Development of Higher Psychological Processes*. Massachusetts and London: Harvard University, Cambridge, Massachusetts USA and London, England.
10. Lev Vygotsky, Kozulin, c. A. (1986). *Thought and Language; translation newly revised and edited by Alex Kozulin*. Cambridge, Massachusetts; London England: The MiT Press.
11. UNICEF, Parenting (2026) <https://www.unicef.org/parenting/child-development/hoë-play-strengthens-your-childs-mental>

**EARLY INTERVENTION AND MEDICAL  
REHABILITATION IN CHILDREN WITH  
CEREBRAL PALSY: CHALLENGES AND  
PERSPECTIVES IN INCLUSIVE EDUCATION**

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**Abstract**

Early intervention acts as a primary component in improving developmental and functional results among persons with cerebral palsy. The aim of this research is to assess the effects and challenges of integrating medical rehabilitation in inclusive early education programs in western and southwestern part of Macedonia. A total of 20 children with cerebral palsy from different rehabilitation and educational centres in Prilep, Bitola, Kicevo, Ohrid and Struga were included. A mixed method is implemented, with combination of quantitative assessment and qualitative observation. Functional abilities were evaluated with the Gross motor function classification system - GMFCS and Pediatric evaluation of disability inventory - PEDI. Statistical analysis included descriptive measures, paired t-tests and Pearson correlation to assess the relationship between therapy frequency, functional independence and school participation. The results showed improvements in self-care, mobility and social interaction, showing the value of coordinated therapeutic and educational approaches. This research identifies systemic barriers such as limited access to multidisciplinary services and insufficient teacher training. Strengthening collaboration between physiotherapists and special educators and rehabilitators is important for sustainable inclusive models in early childhood care for children with cerebral palsy.

**Keywords:** early intervention, cerebral palsy, medical rehabilitation, inclusive education, functional development.

## INTRODUCTION

Cerebral palsy is one of the most common causes of motor impairment in childhood that affects approximately 1.5-3 per 1,000 live births around the globe (Patel et al., 2020). This condition is a non-progressive and is characterized by impairments of movement, posture, and motor control, accompanied by disturbances of sensation, perception, cognition, communication, and behaviour (Twum & Hayford, 2024). These impairments influence a child's functional independence, participation in everyday activities, and long-term educational inclusion and consequently, early childhood is a critical window for therapeutic intervention, especially when neuroplasticity is highest and functional trajectories can be shaped (Morgan et al., 2021).

Early intervention has shown as a basis of the management of cerebral palsy. It includes medical rehabilitation, physiotherapy, occupational therapy, and developmental support provided during the first years of life, with aim not only to prevent secondary complications but also to improve motor learning, autonomy, and participation (Damiano & Longo, 2021). Research confirms that children who receive timely, intensive, and coordinated rehabilitation show superior results in gross motor function, self-care, mobility and social engagement compared to those who enter therapy later or receive inconsistent services (Opheim et al., 2025). On the other hand, the effectiveness of early intervention does not depend only on the intensity of therapy, but also on how well rehabilitation is integrated into the daily environment of the child, especially within inclusive education (Harniess et al., 2021). Inclusive education based on the principles of equity, participation, and non-discrimination became a fundamental component of modern child development policies (Michopoulou, 2025). For children with cerebral palsy inclusion in early childhood education offers not only academic stimulation but also opportunities for social interaction, communication, emotional regulation, and functional skill acquisition in natural contexts (Kılınç et al., 2025). When medical rehabilitation is integrated in the inclusive education, therapy extends beyond clinical environments and becomes part of everyday learning and participation and this ecological approach connects with the International Classification of Functioning, Disability and Health (Simon et al., 2024).

Despite the strong theoretical and empirical support, the integration of medical rehabilitation into inclusive early education is a big challenge, especially in low- and middle-income countries and transitional health-education systems (Almasri et al., 2023). In many regions, rehabilitation and education operate in parallel rather than in partnership, resulting in inconsistent services and therapeutic goals, as also reduced functional transfer into school participation (Abdi et al., 2025). In North Macedonia, and especially in its western and southwestern regions children with cerebral palsy face unequal access to early rehabilitation services and inclusive educational support (Karovska-Ristovska et al., 2023). While rehabilitation centres and special education institutions exist in cities such as Bitola, Prilep, Ohrid, Kičevo, and Struga, the collaboration between these sectors is largely informal and dependent on individual professionals rather than structured systems (Ajdinski, 2006).

The aim of this research paper is to evaluate the effects of medical rehabilitation in inclusive early education among children with cerebral palsy in western and southwestern North Macedonia. With standardized functional assessments with qualitative observations of school participation, this research identifies the benefits and the systemic barriers that determine early developmental results.

## **METHODOLOGY**

### **Study design**

For this research, a mixed-methods design was used combining quantitative functional assessment with qualitative observation of participation in inclusive early education.

### **Setting and participants**

The sample consisted of 20 children with cerebral palsy recruited from Prilep, Bitola, Kičevo, Ohrid, and Struga - western and southwestern part of North Macedonia. Children represented a range of types of cerebral palsy and functional severities enabling analysis across different levels of motor limitation.

### **Procedures and data collection**

For the ecological validity and reduce assessment-related stress, quantitative assessments were collected in home conditions - domestic environment with the presence of a parent/caregiver. In parallel, participation within inclusive early education was

documented through structured qualitative observation and recording of a school participation score used for correlational analysis with rehabilitation intensity.

### **Outcome measures**

The outcome measures were Gross Motor Function Classification System (GMFCS) and its used to classify gross motor functional level (I–V) as an indicator of motor severity. Also, Pediatric Evaluation of Disability Inventory (PEDI) for functional abilities in three categories: self-care, mobility, and social function with pre-intervention and post-intervention scores recorded for each participant. It was measured the rehabilitation intensity and weekly therapy frequency was recorded as  $\leq 2$  sessions/week, 3-4 sessions/week, or  $\geq 5$  sessions/week., and inclusive participation - a participation indicator (school participation score) was obtained from the qualitative observation component and included in correlation analyses.

### **Statistical analysis**

Data were analyzed with descriptive statistics (n, %, mean  $\pm$  standard deviation). Change in PEDI categories scores were examined with paired t-tests (pre-post) to determine statistically significant functional improvements. Associations between weekly rehabilitation frequency and functional change scores ( $\Delta$  = post-pre), as well as school participation were assessed with Pearson correlation coefficients (r).

### **Ethics, consent, and confidentiality**

Participation was voluntary. Prior to inclusion, written informed consent was obtained from parents/legal guardians. All data were handled anonymously: participants were coded, and no identifying personal information was included in analyses or reporting. Data collection in home conditions was conducted respectfully, minimizing problems on the child and family and ensuring privacy throughout the assessment process.

## **RESULTS**

**Table 1.** Gender of children included in this research.

| Gender | n  | %  |
|--------|----|----|
| Male   | 12 | 60 |

|        |    |     |
|--------|----|-----|
| Female | 8  | 40  |
| Total  | 20 | 100 |

Table 1 shows the gender of the participants with cerebral palsy. The sample included 12 boys (60%) and 8 girls (40%), showing a higher representation of male participants in this research.

**Table 2.** Age distribution of children with cerebral palsy.

| Years | n  | %   |
|-------|----|-----|
| 3-4   | 6  | 30  |
| 5-6   | 8  | 40  |
| 7-8   | 6  | 30  |
| Total | 20 | 100 |

Table 2 shows the age distribution of the participating children with cerebral palsy and the largest proportion of children were 5-6 years (40%), while the 3-4 and 7-8 years were equally represented (30% each).

**Table 3.** Type of cerebral palsy among the participants.

| Type of cerebral palsy | n  | %   |
|------------------------|----|-----|
| Spastic diplegia       | 7  | 35  |
| Spastic quadriplegia   | 5  | 25  |
| Spastic hemiplegia     | 4  | 20  |
| Dyskinetic             | 3  | 15  |
| Ataxic                 | 1  | 5   |
| Total                  | 20 | 100 |

Table 3 shows the types of cerebral palsy in the study sample. Spastic forms were dominant types, with spastic diplegia (35%) and spastic quadriplegia (25%) being the most common, followed by spastic hemiplegia (20%). Non-spastic types were less frequent, including dyskinetic cerebral palsy (15%) and ataxic cerebral palsy (5%).

**Table 4.** GMFCS level of the participants.

| GMFCS level | n | %  |
|-------------|---|----|
| Level I     | 3 | 15 |
| Level II    | 4 | 20 |
| Level III   | 5 | 25 |

|          |    |     |
|----------|----|-----|
| Level IV | 5  | 25  |
| Level V  | 3  | 15  |
| Total    | 20 | 100 |

Table 4 shows the distribution of functional severity according to the Gross Motor Function Classification System. The sample included children with all GMFCS levels, with the highest representation in levels III and IV (25%), showing moderate-to-severe functional limitations. Levels I and V were equally represented, while Level II represented for 20%.

**Table 5.** Weekly rehabilitation frequency.

| Weekly rehabilitation frequency | n  | %   |
|---------------------------------|----|-----|
| ≤ 2 sessions/week               | 6  | 30  |
| 3-4 sessions/week               | 9  | 45  |
| ≥5 sessions/week                | 5  | 25  |
| Total                           | 20 | 100 |

Table 5 shows the rehabilitation intensity expressed as the number of therapy sessions per week among children with cerebral palsy. Most of the participants received 3-4 sessions per week (45%), while 30% received two or fewer sessions, and 25% attended five or more sessions weekly.

**Table 6.** PEDI category scores before and after rehabilitation.

| PEDI category      | Pre-intervention<br>Mean ± standard<br>deviation | Post-<br>intervention<br>Mean ± standard<br>deviation | Mean<br>change | p-value<br>(paired t-<br>test) |
|--------------------|--------------------------------------------------|-------------------------------------------------------|----------------|--------------------------------|
| Self-care          | 41.2 ± 9.6                                       | 48.9 ± 9.1                                            | +7.7           | 0.002                          |
| Mobility           | 38.5 ± 10.4                                      | 45.3 ± 10.0                                           | +6.8           | 0.004                          |
| Social<br>function | 44.8 ± 8.7                                       | 50.6 ± 8.2                                            | +5.8           | 0.010                          |

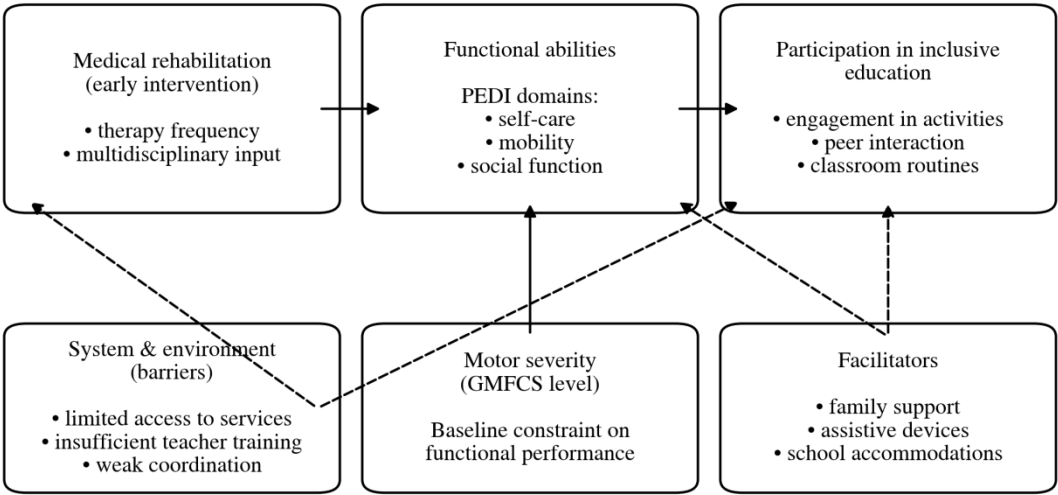
Table 6 shows the changes in Paediatric Evaluation of Disability Inventory (PEDI) category scores before and after the rehabilitation. Statistically significant improvements were found across all PEDI categories including self-care, mobility, and social function, indicating improved functional independence and participation-

related skills after coordinated medical rehabilitation within early education contexts.

**Table 7.** Pearson correlations between weekly rehabilitation frequency and functional results.

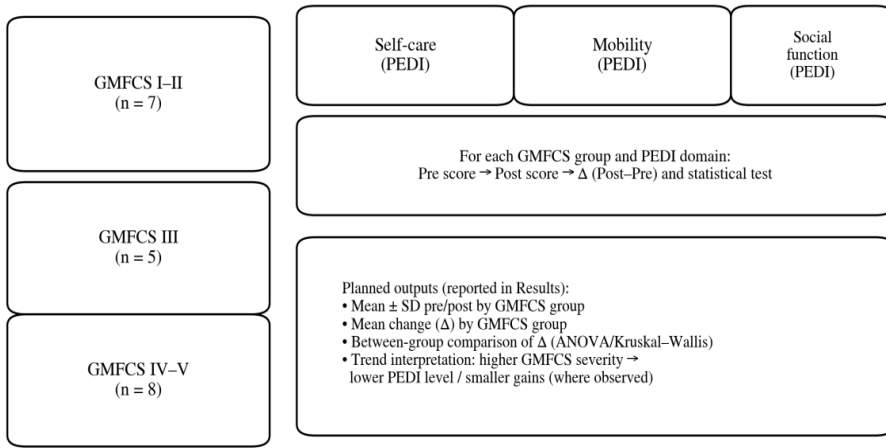
| Outcome variable                          | Pearson r | p-value |
|-------------------------------------------|-----------|---------|
| Change in PEDI self-care (post-pre)       | 0.56      | 0.010   |
| Change in PEDI mobility (post-pre)        | 0.62      | 0.004   |
| Change in PEDI social function (post-pre) | 0.48      | 0.032   |
| School participation score                | 0.59      | 0.006   |

Table 7 shows the association between weekly rehabilitation frequency and changes in functional results among the participants. Higher therapy frequency was moderately and correlated with greater improvements in PEDI categories. In addition, therapy frequency showed a positive correlation with observed school participation, suggesting that more consistent rehabilitation may support not only functional independence but also engagement within inclusive education.



**Figure 1.** ICF informed conceptual model for early intervention and inclusive participation in cerebral palsy.

Figure 1 shows the ICF-informed conceptual model connecting early medical rehabilitation to functional abilities and subsequent participation in inclusive education. Motor severity is represented as general constraint that influences functional performance. System and environmental barriers and facilitators are shown as contextual factors that can obstruct or support the rehabilitation-to-participation pathway.



**Figure 2.** PEDI results stratified by GMFCS - analysis structure for pre/post comparison and change scores ( $\Delta$ ).

Figure 2 shows the analytical structure connecting motor severity with functional results measured by the PEDI categories. For each GMFCS and each PEDI category, pre-intervention and post-intervention scores are compared and summarized as a change score ( $\Delta$  = post-pre), followed by appropriate statistical testing. The model supports interpretation of severity-related patterns, where higher GMFCS levels are associated with lower functional performance and smaller observed gains.

## DISCUSSION

This research showed the role of early intervention and medical rehabilitation for children with cerebral palsy in the inclusive education in western and southwestern North Macedonia. With mixed-methods approach - quantitative functional assessment combined with qualitative observation of school participation, the

results show that coordinated therapeutic and educational support can contribute to improved functional independence and greater engagement in everyday school activities. At the same time, the results showed motor severity as an important factor forming the extent and pattern of functional gains, while also revealing important systemic barriers like limited access to multidisciplinary services, inconsistent therapy intensity, and insufficient teacher training, which may obstruct sustainable inclusion.

Hanson et al. (2024) show important point for interpreting our results - improving results in young children with cerebral palsy is not only about which early rehabilitation interventions exist, but also about how reliably evidence-based practices are implemented in clinical environments. Their co-developed, knowledge-translation approach addresses common barriers faced by rehabilitation workers when trying to adopt evidence-based early interventions. In the context of our results, this supports the argument that strengthening early intervention in inclusive education requires system-level implementation supports structured training, accessible evidence summaries, and coordinated leadership.

Bufteac et al. (2020) give a useful comparison point for our research because they examined early intervention (EI) and follow-up (FU) programs in a low-/middle-resource setting and showed that coverage and referral patterns matter as much as the intervention itself. In Moldova, less than half of children with cerebral palsy were enrolled in EI/FU, and enrolment was biased toward the most vulnerable groups. While they did not find differences in several associated impairments between enrolled vs non-enrolled children, they reported important protective effect: non-walking children who were not enrolled had a markedly higher risk of developing contractures, suggesting EI/FU may reduce secondary musculoskeletal complications.

Mantilla et al. (2022) add an important family-centred perspective that connects with the inclusive education component of our research. With a bioecological framework and survey data from 98 parents in Australia, they report generally high satisfaction with inclusion when educators show positive attitudes, when there is strong communication between home and early childhood environments, and when partnerships exist between families, allied health workers, and

educators. At the same time, parents stressed barriers that are not only physical or organizational, including concerns about children's psychological wellbeing, especially anxiety (for example separation anxiety) and the emotional challenges of participating in early education environments. This defines the argument that effective inclusion for children with cerebral palsy depends on collaborative, cross-sector teamwork and not only therapy delivery, and it stress the need to address both participation and psychosocial safety within inclusive early childhood programs.

Karim et al. (2021) provide evidence from a low-/middle-resource context that structured, community-based early intervention can improve functional results in children with cerebral palsy, especially under age five. In their quasi-experimental research in rural Bangladesh, children who received a 6-month caregiver-led community program showed greater improvements in gross motor function and communication-related classifications, while the standard-care group tended to worsen or show no improvement over time.

## CONCLUSION

This research shows the practical value of integrating early medical rehabilitation with inclusive early education for children with cerebral palsy in western and southwestern part of North Macedonia. Improvements observed across functional categories such as self-care, mobility, and social functioning support the premise that coordinated rehabilitation connected to everyday educational participation can improve functional independence and engagement in schools. At the same time, the results show that motor severity remains important determinant of participation capacity and should guide individualized planning and realistic goals within inclusive programs.

Beyond these outcomes, our results stress that sustainable inclusion depends on system readiness. Limited access to multidisciplinary services, inconsistent therapy intensity, and insufficient training and support for educators continue to constrain the translation of rehabilitation into meaningful participation. In line with recent international evidence on knowledge translation and implementation, the development of structured collaboration pathways between physiotherapists, special educators and rehabilitators, and early

childhood staff supported by practical training tools and shared intervention plans are essential for strengthening inclusivity. Future researches should expand samples, standardize participation measures, and evaluate implementation strategies that improve access, continuity, and inter-sector coordination.

## REFERENCES

1. Patel, D. R., Neelakantan, M., Pandher, K., & Merrick, J. (2020). Cerebral palsy in children: a clinical overview. *Translational pediatrics*, 9(Suppl 1), S125–S135. <https://doi.org/10.21037/tp.2020.01.01>
2. Twum, F., & Hayford, J. K. (2024). Motor development in cerebral palsy and its relationship to intellectual development: A review article. *European Journal of Medical and Health Sciences*, 6(5), 8–15. <https://doi.org/10.24018/ejmed.2024.6.5.2161>
3. Morgan, C., Fethers, L., Adde, L., Badawi, N., Bancale, A., Boyd, R. N., Chorna, O., Cioni, G., Damiano, D. L., Darrah, J., de Vries, L. S., Dusing, S., Einspieler, C., Eliasson, A. C., Ferriero, D., Fehlings, D., Forssberg, H., Gordon, A. M., Greaves, S., Guzzetta, A., ... Novak, I. (2021). Early Intervention for Children Aged 0 to 2 Years With or at High Risk of Cerebral Palsy: International Clinical Practice Guideline Based on Systematic Reviews. *JAMA pediatrics*, 175(8), 846–858. <https://doi.org/10.1001/jamapediatrics.2021.0878>
4. Damiano, D. L., & Longo, E. (2021). Early intervention evidence for infants with or at risk for cerebral palsy: an overview of systematic reviews. *Developmental medicine and child neurology*, 63(7), 771–784. <https://doi.org/10.1111/dmcn.14855>
5. Opheim, V., Skagen, C., Tveten, K. M., Lydersen, S., Størvold, G. V., & Sæther, R. (2025). Changes in gross motor function in children with cerebral palsy following repeated intensive rehabilitation periods: a longitudinal study. *Frontiers in pediatrics*, 13, 1636955. <https://doi.org/10.3389/fped.2025.1636955>
6. Harniess, P. A., Gibbs, D., Bezemer, J., & Basu, A. P. (2021). Parental engagement in early intervention for infants with cerebral palsy—A realist synthesis. *Child: Care, Health and Development*, 48(1), 22–36. <https://doi.org/10.1111/cch.12916>
7. Michopoulou, K. (2025). The principle of equality in education: Exploring the legal aspects of the right to inclusive and equitable

- quality education for achieving the development of a democratic citizenship. *European Journal of Education and Pedagogy*, 6(2), 64–69. <https://doi.org/10.24018/ejedu.2025.6.2.940>
8. Kılınç, N., Orun, İ., & Kök, A. (2025). Experiences of a child with cerebral palsy in inclusive education: A case study based on parent and teacher perspectives. *Bulletin of Educational Studies*, 4(2). <https://doi.org/10.61326/bes.v4i2.388>
  9. Simon, L., Gözl, F., Schenk, O., Bührmann, T., Kauff, M., Kraus de Camargo, O., Snyman, S., Lüers, G., & Wulfhorst, B. (2024). The international classification of functioning, disability and health in clinical practice, research findings and their impact on training and education. *Frontiers in rehabilitation sciences*, 5, 1420498. <https://doi.org/10.3389/fresc.2024.1420498>
  10. Almasri, N. A., Smythe, T., Hadders-Algra, M., Olusanya, B. O., & (On behalf of the Global Research on Developmental Disabilities Collaborators (GRDDC)) (2023). Prioritising rehabilitation in early childhood for inclusive education: a call to action. *Disability and rehabilitation*, 45(19), 3155–3159. <https://doi.org/10.1080/09638288.2022.2118870>
  11. Abdi, K., Foroughi, Z., Najafi, Z., & Afshari, M. (2025). Challenges and solutions to effective stewardship of rehabilitation services: a scoping review. *BMC health services research*, 25(1), 1211. <https://doi.org/10.1186/s12913-025-13366-5>
  12. Karovska Ristovska, A., Filipovska, M., Ajdinski, G., Chichevska-Jovanova, N., Dimitrova-Radojichikj, D., Rashikj-Canevska, O., Stanojkovska-Trajkovska, N., Keskinova, A., Gjeorgjievska, S., Dukovska, V., Kostadinovska, E., Kakabadze, N., Diehl, K., & Vargas-Barón, E. (2023). Situation analysis on early childhood intervention in North Macedonia. United Nations Children's Fund (UNICEF), Country Office Skopje. <https://doi.org/10.13140/RG.2.2.10646.32329>
  13. Ajdinski, L. (2006). Service institutions in Macedonia for care, education and rehabilitation of children with special education needs (development and conditions, legal frame, innovations and challenges, proposals) [Lecture]. Faculty of Philosophy, Institute of Special Education and Rehabilitation, Skopje, North Macedonia.
  14. Hanson, J. H., Majnemer, A., Pietrangelo, F., Dickson, L., Shikako, K., Dahan-Oliel, N., Steven, E., Iliopoulos, G., & Ogourtsova, T. (2024). Evidence-based early rehabilitation for children with

cerebral palsy: co-development of a multifaceted knowledge translation strategy for rehabilitation professionals. *Frontiers in rehabilitation sciences*, 5, 1413240. <https://doi.org/10.3389/fresc.2024.1413240>

15. Buftac, E. G., Andersen, G. L., Spinei, L., & Jahnsen, R. B. (2020). Early intervention and follow-up programs among children with cerebral palsy in Moldova: Potential impact on impairments? *BMC Pediatrics*, 20, Article 29. <https://doi.org/10.1186/s12887-020-1931-7>
16. Mantilla, A., Bussey, K., Chan, E., Gerner, B., & Rinehart, N. (2024). Parents' perspectives on inclusive practices in early childhood education and care: Facilitators and barriers for children with cerebral palsy. *Early Years*, 44(1), 128–144. <https://doi.org/10.1080/09575146.2022.2096571>
17. Karim, T., Muhit, M., Jahan, I., Galea, C., Morgan, C., Smithers-Sheedy, H., Badawi, N., & Khandaker, G. (2021). Outcome of community-based early intervention and rehabilitation for children with cerebral palsy in rural Bangladesh: A quasi-experimental study. *Brain Sciences*, 11(9), Article 1189. <https://doi.org/10.3390/brainsci11091189>

**CONTINUOUS PROFESSIONAL DEVELOPMENT OF EARLY  
CHILDHOOD EDUCATORS IN ALBANIA: CHALLENGES AND  
PERSPECTIVES FROM KORÇA CASE STUDY**

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**Abstract**

This paper examines the state of Continuous Professional Development (CPD) for early childhood educators working with children aged 0–3 in Albania, situating the analysis within European quality frameworks for early childhood education and care (ECEC). International evidence consistently highlights CPD as a structural condition for quality, closely linked to professionalisation, pedagogical coherence, and effective governance. However, services for children under three remain among the most weakly regulated and least monitored sectors of ECEC systems across Europe, a vulnerability that is particularly pronounced in the Albanian context.

Drawing on an ongoing exploratory multi-regional case study conducted in Tirana, Korçë, Gjirokastrë, and Elbasan, with a focused case analysis in Korçë, the study adopts a qualitative-dominant design combining focus groups with nursery educators, a questionnaire administered to parents, and guided observations carried out in municipal nurseries. The findings reveal a persistent absence of structured CPD opportunities for educators, limited institutional demand for professional development from local authorities, and weak quality monitoring mechanisms.

Data further indicate a prevailing assistential framing of nursery services, characterised by the lack of pedagogically articulated educational programmes and limited use of developmentally purposeful practices. While educators demonstrate awareness of their professional learning needs, these remain largely unsupported at the systemic level. Parents, meanwhile, report high satisfaction with services despite limited awareness of their educational content, reinforcing low societal expectations.

The paper argues that the marginalisation of CPD in nursery services reflects broader governance failures and calls for a reconceptualisation of

services for children aged 0–3 as educational and developmental environments. Strengthening CPD frameworks is identified as a critical lever for improving quality, accountability, and equity in early childhood services in Albania.

**Key words:** Continuous Professional Development, Early Childhood Education and Care, Nursery, quality, educators

### **Introduction: Early Childhood Services between Care and Education**

In recent decades, early childhood education and care (ECEC) has gained increasing recognition at the European and international level as a cornerstone of social equity, educational quality, and long-term societal development (European Commission et al., 2025). Extensive evidence confirms that the earliest years of life—particularly the period from birth to age three—are decisive for children’s cognitive, socio-emotional, and relational development, with long-lasting effects on later learning trajectories and social outcomes (Eurofound, 2015; Peleman et al., 2018). Consequently, the quality of services offered to this age group is inseparable from the professional competence, continuous training, and institutional support provided to early childhood educators (Goffin, 2015).

European policy frameworks and comparative research converge on a clear message: high-quality ECEC systems require a qualified, continuously supported workforce, embedded within coherent governance, monitoring, and accountability structures (European Commission et al., 2025; Peeters et al., 2018; Peleman et al., 2018). Continuous professional development (CPD), in this regard, is not an optional add-on, but a structural condition for quality, particularly in services for children under three, where care and education are deeply intertwined and cannot be meaningfully separated (Peeters et al., 2018).

In the Albanian context, however, services for children aged 0–3—primarily delivered through municipal nurseries (çerdhe)—remain marginal within both educational and social policy agendas. This paper emerges from an ongoing exploratory multi-regional case study that seeks to examine the state of CPD for nursery educators in Albania and to interrogate how gaps in governance, professional

development, and societal expectations affect the quality of services provided to the youngest children.

### **CPD and Quality in ECEC: Lessons from International Literature**

A robust body of European research demonstrates that the quality of ECEC is strongly associated with the professionalisation of the workforce and with sustained, practice-oriented CPD systems (Eurofound, 2015; Goffin, 2015). Systematic reviews and comparative studies consistently highlight that short-term, fragmented training initiatives have limited and often short-lived effects, whereas long-term CPD embedded in daily practice—such as pedagogical coaching, reflective groups, mentoring, and guided professional dialogue—leads to measurable improvements in pedagogical quality and child outcomes (Eurofound, 2015; Peleman et al., 2018).

Crucially, contemporary approaches conceptualise CPD not merely as the accumulation of individual skills, but as a collective, reflective, and system-level process. Jensen and Iannone (2018) emphasise that innovative CPD models foster critical reflection, communities of practice, and educators' capacity to co-construct meaning within their institutional and socio-cultural contexts. Similarly, the “competent system” framework argues that individual competence is insufficient in isolation; quality emerges when educators, institutions, governance structures, and policy frameworks operate coherently and support one another over time (Peeters et al., 2018; Urban et al., 2011).

Eurydice data further reveal that across Europe, services for children under three are structurally more fragile than pre-primary education. Qualification requirements for staff are often lower, CPD opportunities are scarcer, and quality monitoring mechanisms are weaker or entirely absent (European Commission et al., 2025). This structural fragility reinforces a persistent divide between “care” and “education,” particularly for the youngest children—a divide that international literature increasingly problematises as both pedagogically unsound and socially inequitable (Goffin, 2015; Peeters et al., 2018).

### **The Albanian Context: Nurseries as an Under-Researched and Under-Governed Field**

Against this international backdrop, the Albanian case reveals structural vulnerabilities that place services for children aged 0–3 at the margins of public attention. Governance of nurseries falls primarily under local government, with municipalities responsible for administration, staffing, and service delivery. Yet, clear frameworks for quality monitoring, professional standards, and mandatory CPD are largely absent or inconsistently applied, leaving the quality of provision heavily dependent on individual practices rather than systemic regulation (European Commission et al., 2025).

This lack of structural clarity constitutes one of the central challenges of conducting research in this field. Data related to nurseries are administered and controlled by municipalities—the very institutions whose policies and practices are under scrutiny. As a result, researching CPD and service quality in nurseries becomes not only methodologically demanding but also politically sensitive, particularly when the aim is to identify systemic shortcomings and governance failures (Goffin, 2015).

It is within this context that the present study has been initiated, focusing on selected municipalities—Tirana, Korçë, Gjirokastrë, and Elbasan—with Korçë examined in greater depth as a case study.

### **Methodological Approach: Giving Voice to Educators, Parents, and Practice**

The study adopts a qualitative-dominant, exploratory case study design, combining multiple sources of data in order to capture the complexity of nursery services as lived, perceived, and practised, in line with international recommendations for ECEC quality research (Eurofound, 2015).

First, focus groups with nursery educators in the Municipality of Korçë were conducted to explore their perceptions of the service, their professional roles, and their experiences with CPD. These discussions reveal that educators have not participated in any structured professional development activities for more than five years. Despite this, they articulate a wide range of perceived needs related to child development, pedagogical approaches, inclusive practices, and communication with families—needs that closely

mirror those identified in European comparative studies (Jensen & Iannone, 2018; Peleman et al., 2018).

Second, a questionnaire was distributed to parents whose children currently attend or have previously attended nurseries in Korçë. The aim was to assess parental perceptions of service quality and to triangulate these perspectives with educators' accounts, as recommended by European quality frameworks emphasising partnerships with families (European Commission et al., 2025).

Third, guided observations were carried out in nurseries through the involvement of students enrolled in the "Education in Early Childhood" study programme at "Fan S. Noli" University. These observations focused on pedagogical practices, the presence or absence of educational programmes, the use of didactic materials, and educators' interaction styles, allowing for an analysis of everyday practices beyond self-reported data (Eurofound, 2015).

## **Results**

### **Characteristics of the participants**

Twenty-four parents of children attending municipal nurseries in Korçë participated in the study. The sample was predominantly female (95.8%), reflecting the continuing tendency for mothers to be the primary respondents in matters concerning early childhood care and education. Half of the participants were between 25 and 34 years of age, while one quarter were aged between 35 and 44 years. Most participants held a university degree, with almost half reporting a Master's qualification, indicating a relatively highly educated sample. All respondents were employed full-time and all children attended nurseries located in urban areas. Interestingly, parents reported that the principal reasons for enrolling their children in nursery were related to childcare needs rather than educational expectations. Specifically, 41.7% indicated that nursery attendance was primarily motivated by the lack of alternative childcare arrangements, while another 41.7% referred to the need for childcare during working hours. Only a small proportion of parents (8.3%) identified children's educational development as the main reason for nursery enrolment.

These findings already suggest that nursery services continue to be perceived predominantly as childcare services rather than educational environments.

| <b>DEMOGRAPHIC CHARACTERISTICS OF PARTICIPANTS (N = 24)</b> |                                |          |          |
|-------------------------------------------------------------|--------------------------------|----------|----------|
| <b>VARIABLE</b>                                             | <b>Category</b>                | <b>n</b> | <b>%</b> |
| <b>GENDER</b>                                               | Female                         | 23       | 95.8     |
|                                                             | Male                           | 1        | 4.2      |
| <b>AGE</b>                                                  | Under 25 years                 | 1        | 4.2      |
|                                                             | 25–34 years                    | 12       | 50.0     |
|                                                             | 35–44 years                    | 6        | 25.0     |
|                                                             | 45 years or older              | 5        | 20.8     |
| <b>EDUCATIONAL LEVEL</b>                                    | Secondary education            | 1        | 4.2      |
|                                                             | Vocational education           | 2        | 8.3      |
|                                                             | Bachelor's degree              | 7        | 29.2     |
|                                                             | Master's degree                | 11       | 45.8     |
|                                                             | Doctoral degree                | 3        | 12.5     |
| <b>EMPLOYMENT STATUS</b>                                    | Full-time employed             | 24       | 100      |
| <b>NURSERY LOCATION</b>                                     | Urban                          | 24       | 100      |
| <b>MAIN REASON FOR ENROLMENT</b>                            | Childcare during working hours | 10       | 41.7     |
|                                                             | Lack of alternative childcare  | 10       | 41.7     |
|                                                             | Educational development        | 2        | 8.3      |
|                                                             | Socialisation                  | 2        | 8.3      |

*Tabela 1. Demografic Characteristics of Participants*

### **Reliability of the instrument**

The internal consistency of the questionnaire was examined using Cronbach's alpha. All six dimensions demonstrated satisfactory to excellent reliability, with alpha coefficients ranging from .803 to .962. The overall questionnaire yielded an alpha coefficient of .974, indicating excellent internal consistency.

The highest reliability coefficients were observed for the dimensions measuring the educational programme ( $\alpha = .960$ ) and overall satisfaction ( $\alpha = .962$ ), while the accessibility and organisation dimension also demonstrated good reliability ( $\alpha = .803$ ). These results indicate that the instrument provides a reliable basis for examining parents' perceptions of nursery service quality.

#### Reliability Analysis of the Questionnaire

| Dimension                               | Number of items | Cronbach's $\alpha$ |
|-----------------------------------------|-----------------|---------------------|
| Accessibility and Organisation          | 5               | .803                |
| Physical Environment and Infrastructure | 6               | .914                |
| Educational Programme and Activities    | 7               | .960                |
| Educators' Professionalism              | 7               | .924                |
| Safety and Child Well-being             | 4               | .927                |
| Overall Satisfaction                    | 4               | .962                |
| <b>Total questionnaire</b>              | <b>33</b>       | <b>.974</b>         |

*Tabela 2. Reliability analysis of the questinnaire*

#### Parents' perceptions of nursery service quality

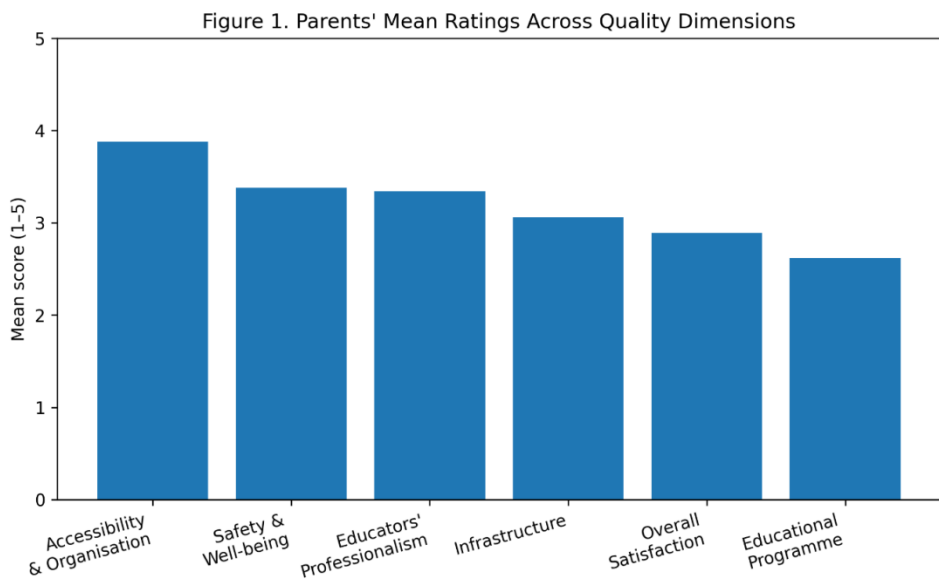
Parents generally expressed moderately positive perceptions regarding the quality of nursery services, although considerable variation emerged across different dimensions of quality.

Accessibility and organisation received the highest evaluation ( $M = 3.88$ ), suggesting that parents were generally satisfied with practical aspects such as nursery location, opening hours, admission procedures and communication with administrative staff. Likewise, safety and children's well-being ( $M = 3.38$ ) and educators' professionalism ( $M = 3.34$ ) were evaluated positively.

Conversely, considerably lower ratings were obtained for infrastructure (M = 3.06), overall satisfaction (M = 2.89) and, most notably, the educational programme (M = 2.62), which represented the lowest-rated dimension across the questionnaire.

| Descriptive Statistics of the Main Quality Dimensions |      |      |      |
|-------------------------------------------------------|------|------|------|
| Dimension                                             | Mean | SD   | Rank |
| Accessibility and Organisation                        | 3.88 | 0.58 | 1    |
| Safety and Child Well-being                           | 3.38 | 0.68 | 2    |
| Educators' Professionalism                            | 3.34 | 0.60 | 3    |
| Physical Environment and Infrastructure               | 3.06 | 0.67 | 4    |
| Overall Satisfaction                                  | 2.89 | 1.01 | 5    |
| Educational Programme and Activities                  | 2.62 | 0.93 | 6    |

*Tabela 3. Descriptive Statistics of the Main Quality Dimensions*



This pattern indicates that parents primarily value the organisational and caregiving functions of nurseries, while expressing substantially lower confidence regarding their educational role.

### Item-level analysis

The highest rated individual items further reinforce this interpretation. Parents strongly agreed that nursery opening hours were compatible with family needs ( $M = 4.38$ ), that admission procedures were clear ( $M = 4.25$ ), and that communication with nursery administration was effective ( $M = 4.21$ ). Accessibility of nursery services also received high ratings.

In contrast, the lowest rated items referred almost exclusively to the educational dimension of nursery services. Parents reported limited knowledge of the educational programme implemented by the nursery ( $M = 1.71$ ), insufficient information regarding daily educational activities ( $M = 1.96$ ), and relatively poor evaluations of outdoor learning environments ( $M = 1.96$ ). Similarly, parents expressed only moderate agreement that the nursery fulfilled their overall expectations ( $M = 2.46$ ).

These findings suggest that although parents appreciate the organisational quality of nursery services, they remain largely unaware of the educational processes taking place within these settings.

### *Highest- and Lowest-Rated Questionnaire Items*

| <i>Highest-rated items</i>                                    |             |
|---------------------------------------------------------------|-------------|
| <i>Item</i>                                                   | <i>Mean</i> |
| <i>Nursery opening hours meet family needs</i>                | 4.38        |
| <i>Admission procedures are clear</i>                         | 4.25        |
| <i>Communication with nursery administration is effective</i> | 4.21        |
| <i>Nursery is easily accessible</i>                           | 4.12        |
| <i>Educators communicate effectively with parents</i>         | 3.79        |

| <i>Lowest-rated items</i> |             |
|---------------------------|-------------|
| <i>Item</i>               | <i>Mean</i> |

|                                                                      |      |
|----------------------------------------------------------------------|------|
| <i>I am familiar with the nursery educational programme</i>          | 1.71 |
| <i>I receive sufficient information about educational activities</i> | 1.96 |
| <i>Outdoor play areas are appropriate</i>                            | 1.96 |
| <i>The number of nursery places is sufficient</i>                    | 2.46 |
| <i>The nursery meets my expectations</i>                             | 2.46 |

*Tabela 4. Highest- and Lowest-Rated Questionnaire Items*

### **Relationship between quality dimensions and overall satisfaction**

Spearman correlation analyses revealed statistically significant positive associations between overall satisfaction and four dimensions of nursery quality.

The strongest association emerged between parents' perceptions of the educational programme and overall satisfaction ( $\rho = .838$ ,  $p < .001$ ), followed by infrastructure ( $\rho = .791$ ,  $p < .001$ ), children's safety and well-being ( $\rho = .695$ ,  $p < .001$ ), and educators' professionalism ( $\rho = .624$ ,  $p = .001$ ). Accessibility and organisation showed only a weak, non-significant relationship with overall satisfaction.

These findings suggest that, although accessibility constitutes an important prerequisite for service utilisation, parents' overall evaluations of nursery quality are primarily shaped by educational and pedagogical aspects of the service.

### **Correlations Between Quality Dimensions and Overall Satisfaction**

| <b>Dimension</b>               | <b>Spearman's <math>\rho</math></b> | <b>p</b>         |
|--------------------------------|-------------------------------------|------------------|
| Educational Programme          | <b>.838</b>                         | <b>&lt; .001</b> |
| Physical Environment           | <b>.791</b>                         | <b>&lt; .001</b> |
| Safety and Child Well-being    | <b>.695</b>                         | <b>&lt; .001</b> |
| Educators' Professionalism     | <b>.624</b>                         | <b>.001</b>      |
| Accessibility and Organisation | <b>.368</b>                         | <b>.077</b>      |
|                                |                                     |                  |

*Tabela 5. Correlations Between Quality Dimensions and Overall Satisfaction*

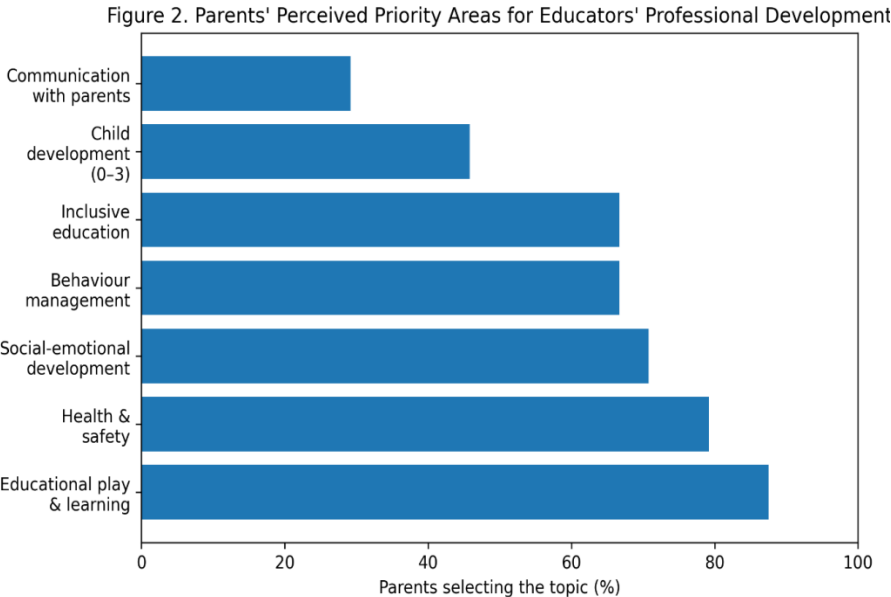
**Parents' perceptions of educators' professional development needs**

Parents were also asked to identify areas in which they believed nursery educators required further professional development.

The highest percentages were reported for educational play and learning activities (87.5%), followed by health and safety (79.2%), children's socio-emotional development (70.8%), behaviour management (66.7%), and inclusive education (66.7%).

Interestingly, despite limited awareness of the educational programme offered by nurseries, parents clearly recognised the importance of strengthening educators' pedagogical competences through continuous professional development.

This finding reinforces the argument that families value high-quality educational provision even when they are not fully informed about the pedagogical content of nursery services.



## Discussion

### **High levels of satisfaction do not necessarily reflect educational quality**

One of the most significant findings of this study is the discrepancy between parents' overall satisfaction with nursery services and their limited awareness of the educational programme implemented within these settings. Although parents generally evaluated nursery services positively, the educational programme received the lowest ratings among all quality dimensions. In particular, respondents reported little knowledge of the pedagogical programme and limited information regarding the educational activities carried out with their children.

This finding suggests that parental satisfaction should not be interpreted as a direct indicator of pedagogical quality. Rather, it appears to reflect satisfaction with the caregiving, organisational and supervisory functions of nursery services. Similar concerns have been raised in European ECEC literature, where quality is increasingly conceptualised as a multidimensional construct extending beyond parental satisfaction to include curriculum implementation, workforce competence and pedagogical interactions (European Commission et al., 2025; Goffin, 2015).

### **Professional commitment without institutional professionalisation**

Focus group discussions revealed that nursery educators demonstrated a strong awareness of their own professional development needs. Participants consistently expressed interest in receiving training on child development, pedagogical planning, inclusive practices and communication with families. However, most educators reported that they had not participated in structured professional development activities for several years.

This finding supports the argument that the principal challenge lies not in educators' motivation, but in the absence of institutional mechanisms that sustain professional learning. The "competent

systems" framework argues that workforce quality cannot rely solely on individual commitment; rather, it requires coherent governance structures, continuous learning opportunities and supportive organisational cultures (Peeters et al., 2018; Urban et al., 2011).

### **Governance as a determinant of service quality**

A further contribution of this study concerns the relationship between governance and quality assurance. Although municipalities are formally responsible for nursery services, evidence from observations and focus groups indicates that pedagogical monitoring, curriculum supervision and CPD planning remain largely absent.

This governance gap reinforces an assistential model of nursery provision, in which organisational routines dominate over intentional educational practices. Such findings contrast with European policy recommendations emphasising integrated governance, quality monitoring and mandatory professional development as essential components of high-quality ECEC systems (European Commission et al., 2025).

### **Reframing nursery services from childcare to education**

Taken together, the findings suggest that nursery services in Albania continue to be understood primarily as childcare services rather than educational environments. While parents enrol their children mainly for practical reasons, they simultaneously recognise the need for stronger pedagogical competences among educators.

This apparent contradiction represents an important opportunity for policy development. Increasing the educational quality of nursery services requires not only investment in educators' professional development but also greater public awareness regarding the developmental significance of the first three years of life. Strengthening partnerships between municipalities, universities and nursery services could therefore constitute an important strategy for

transforming nursery provision from a predominantly assistential model towards an educationally oriented ECEC system.



### Conclusions and Directions for Future Research and Policy

This study underscores the urgent need to reconceptualise nurseries in Albania as educational and developmental environments, not merely assistential services. Continuous professional development must be positioned as a structural requirement, linked to quality assurance, institutional accountability, and the professional identity of educators, in line with European quality frameworks (European Commission et al., 2025).

From a research perspective, the findings highlight the necessity of further systematic studies on ECEC services for children aged 0–3 in Albania, combining policy analysis, ethnographic observation, and longitudinal approaches (Eurofound, 2015). From a policy standpoint, they call for stronger coordination between local and central authorities, the development of CPD frameworks aligned with European quality principles, and increased public awareness of the educational value of early childhood services.

Ultimately, investing in CPD for nursery educators is not simply an investment in professionals—it is an investment in children’s rights,

social equity, and the long-term quality of the education system itself (Goffin, 2015; Peeters et al., 2018).

### References

- European Commission, European Education and Culture Executive Agency, & Eurydice. (2025). *Key data on early childhood education and care in Europe – 2025*. Publications Office of the European Union. <https://doi.org/10.2797/004435>
- Eurofound. (2015). *Early childhood care: Working conditions, training and quality of services – A systematic review*. Publications Office of the European Union. <https://doi.org/10.2806/69399>
- Goffin, S. G. (2015). *Professionalizing early childhood education as a field of practice: A guide to the next era*. Redleaf Press.
- Jensen, B., & Iannone, R. L. (2018). Innovative approaches to continuous professional development (CPD) in early childhood education and care (ECEC) in Europe: Findings from a comparative review. *European Journal of Education*, 53(1), 23–33. <https://doi.org/10.1111/ejed.12253>
- Peeters, J., Sharmahd, N., & Budginaite, I. (2018). Early childhood education and care assistants in Europe: Pathways towards continuous professional development and qualification. *European Journal of Education*, 53(1), 46–57. <https://doi.org/10.1111/ejed.12254>
- Peleman, B., Lazzari, A., Budginaite, I., Siarova, H., Hauari, H., Peeters, J., & Cameron, C. (2018). Continuous professional development and ECEC quality: Findings from a European systematic literature review. *European Journal of Education*, 53(1), 9–22. <https://doi.org/10.1111/ejed.12257>
- Urban, M., Vandenbroeck, M., Peeters, J., Lazzari, A., & Van Laere, K. (2011). *Competence requirements in early childhood education and care: Final report*. European Commission.

**PROFESSIONAL PERCEPTIONS OF TEACHING ASSISTANTS  
AND THEIR IMPACT ON WORKING WITH CHILDREN WITH  
AUTISM**  
*AN EMPIRICAL STUDY WITH TEACHING ASSISTANTS IN THE KORÇË  
REGION*

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**Abstract**

This study examines teaching assistants' perceptions regarding children with Autism Spectrum Disorder (ASD) and the impact of these perceptions on supportive practices in schools in the Korçë region. Using a mixed-methods approach (Likert-scale questionnaires and reflective questions), the attitudes, experiences, and professional development needs of 99 teaching assistants were analyzed. The results indicate that positive perceptions among teaching assistants are associated with more effective interventions and more individualized support for students with autism. Factors influencing perceptions include age group, place of residence, professional experience, specialized training, and employment status. Well-prepared and specially trained assistants demonstrated higher competencies in building supportive relationships, managing behavior, and promoting social and academic inclusion. However, the lack of detailed legal guidelines and gaps in professional training create challenges for inclusive education. The study recommends specialized training, continuous professional development, improvement of institutional and legal frameworks, and strengthening interprofessional collaboration. Findings contribute to understanding the key role of teaching assistants in inclusive education and provide concrete guidance for enhancing supportive practices for children with ASD in Albania.

**Keywords:** teaching assistants, autism, inclusive education, perception, supportive practice, Albania

**1. Introduction**

Inclusive education has entered the Albanian educational system as a necessity for guaranteeing the right to education for every child, regardless of abilities or special needs. The inclusion of children with

Autism Spectrum Disorder (ASD) in the educational system represents a significant challenge for schools, teachers, and educational policies. In this context, the role of teaching assistants is particularly important. They represent a key link between the child with autism and the school environment, directly influencing the child's educational experience, social development, and emotional well-being.

However, the way teaching assistants understand and interpret autism influences the quality of support they provide. Their perceptions are shaped by personal experiences, professional preparation, institutional culture, and the educational system's approach to diversity. This study aims to analyze the perceptions of teaching assistants in the Korçë region regarding children with autism, exploring how these perceptions influence their daily practice. The research instrument was developed based on international literature and institutional Albanian documents regulating inclusive education.

### 1.2 Purpose and Objectives

The purpose of this study is to analyze teaching assistants' perceptions of children with ASD and evaluate how these perceptions influence the support they provide.

The main objectives include:

- Assessing the level of professional preparation among teaching assistants;
- Identifying institutional and cultural challenges affecting their role;
- Comparing subgroups of assistants with and without specialized professional training;
- Exploring the relationship between professional perception and the progress of students with ASD.

## 2. Literature Review

Inclusive education aims to ensure the active participation of all students in the school environment, including those with Autism Spectrum Disorder (ASD). Children with autism face challenges in communication, social interaction, and repetitive behaviors, requiring structured and sensitive support. According to UNESCO (2020), teaching assistants are an essential part of the support team in inclusive education, particularly for

children with autism whose needs require personalized approaches. Jackson et al. (2021) emphasize that positive perceptions are associated with more personalized support and greater inclusion of children in classroom activities. Giangreco (2010) warns that excessive support lacking professional coordination may limit children's independence and create unnecessary dependency. Webster and De Boer (2019) add that the perception of teaching assistants influences not only support practices but also social inclusion and academic achievement. Gómez-Marí et al. (2022) identified professional experience, specialized training, institutional support, and direct contact with children with ASD as significant factors influencing teachers' attitudes toward autism. Professional training is a determining factor in shaping sustainable and empowering perceptions regarding children with ASD. Ianes (2015) argues that teaching assistants should possess pedagogical, emotional, collaborative, and reflective competencies in order to effectively support children with autism.

### **3. Research Methodology**

This study follows an exploratory and descriptive approach with the aim of understanding the perceptions, attitudes, and needs of teaching assistants who support children with Autism Spectrum Disorder (ASD).

The methodology is primarily quantitative, supported by qualitative elements through reflective open-ended questions. The research instrument was structured into thematic sections covering perceptions, professional competence, institutional support, and reflective experiences.

Participants were teaching assistants employed in public schools in the Korçë region who had experience assisting children with autism. Data collection was conducted digitally using Google Forms during September 2025. Quantitative data were analyzed statistically using SPSS software, while qualitative responses were analyzed thematically.

The study was conducted in accordance with ethical research principles, guaranteeing anonymity, confidentiality, and informed consent for all participants.

### Research Questions

1. How do teaching assistants perceive children with Autism Spectrum Disorder and how does this perception influence the support they provide in the classroom?
2. What is the level of professional preparation among teaching assistants for supporting children with ASD?
3. What are the main institutional and cultural challenges experienced by teaching assistants in supporting children with ASD in schools in the Korçë region?

### Research Hypotheses

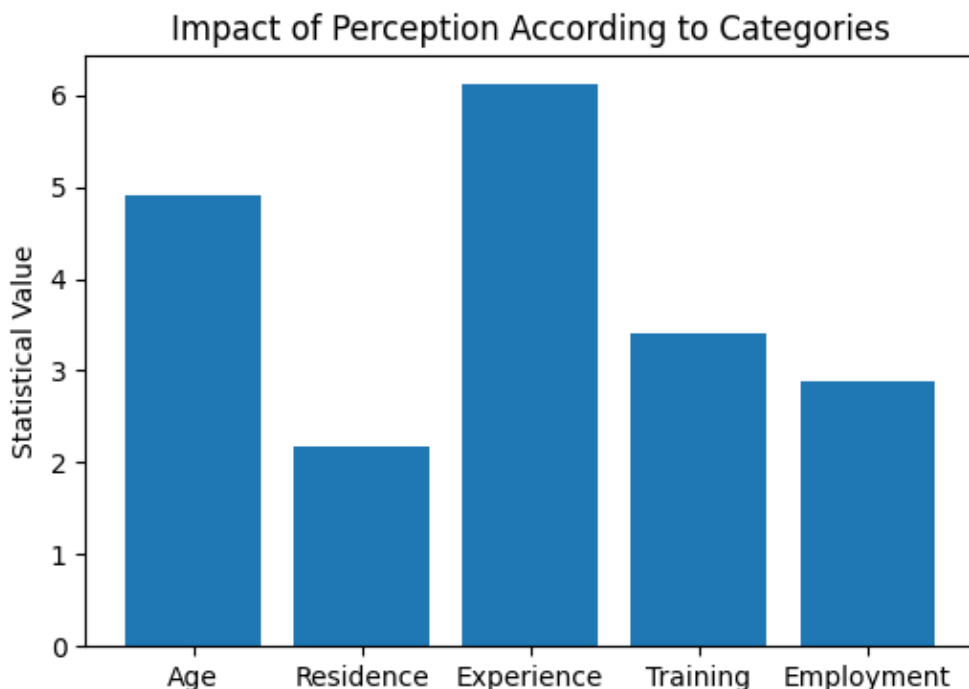
- H1: Teaching assistants with positive perceptions of children with autism provide more personalized and effective support during classroom instruction.
- H2: Teaching assistants who have received specialized autism training demonstrate clearer perceptions and more structured support strategies.
- H3: Lack of professional training negatively affects the way teaching assistants perceive and support children with autism.

### 4. Results

The questionnaire was completed by 99 participants, the majority of whom were women (92%). Statistical analyses demonstrated several important findings. Age significantly influenced perceptions of professional preparedness ( $F = 4.91$ ,  $p = 0.012$ ), with assistants over 40 years old reporting greater confidence and competence. School location also influenced perceptions. Participants working in urban schools reported higher levels of preparedness than those working in rural schools ( $t = 2.17$ ,  $p = 0.034$ ), suggesting differences in access to training, educational resources, and institutional support. Professional experience played an important role ( $F = 6.12$ ,  $p = 0.004$ ). Participants with more than 10 years of experience demonstrated stronger competencies in identifying students' individual needs, implementing adapted strategies, and building supportive relationships. Teaching assistants who had attended autism-specific training programs reported significantly greater preparedness ( $t = 3.41$ ,  $p = 0.001$ ), including stronger competencies in behavior management,

alternative communication, and evidence-based inclusive practices. Employment stability also influenced professional self-confidence and long-term engagement in inclusive educational practices.

**Figure 1 – Impact of Perception According to Categories**



#### Relationship Between Experience and Perception

Pearson correlation ( $r = 0.45$ ,  $p < 0.01$ ) demonstrated a moderate positive relationship between years of professional experience and positive perception. This indicates that the more experience teaching assistants possess, the higher their professional self-evaluation and confidence in providing individualized interventions for students with ASD.

#### Perceptions Among Newly Employed Teaching Assistants

In this analysis, “new teaching assistants” were considered those with fewer than five years of professional experience. Two subgroups were identified:

Group A: Teaching assistants without a specialized degree;  
Group B: Teaching assistants with specialized training and qualifications.

The findings showed significant differences between these groups. Group B reported greater professional preparedness, stronger self-confidence, and more frequent use of structured educational strategies such as visual schedules, step-by-step task breakdowns, and supportive educational tools.

By contrast, Group A relied more heavily on intuition and personal experience, demonstrating lower confidence in managing challenging situations related to ASD.

## 5. Discussion

The findings of this study confirm international literature emphasizing the importance of professional training and experience in inclusive educational settings.

Teaching assistants with structured professional preparation demonstrated greater use of evidence-based practices, including visual scheduling, structured routines, behavioral interventions, and emotional mediation strategies.

The study also highlights inequalities between urban and rural educational contexts in Albania, particularly regarding access to institutional resources and professional development opportunities. Professional perception emerged as a central factor shaping educational practice. Teaching assistants who viewed children with ASD as capable learners were more likely to implement individualized and empowering interventions promoting social participation, communication, and independence.

## 6. Conclusions

The study demonstrates that teaching assistants' perceptions significantly influence the quality and effectiveness of support provided to children with Autism Spectrum Disorder. Positive professional perceptions are associated with:

- Greater use of individualized educational strategies;
- Improved classroom inclusion;
- Better emotional and social support;
- Increased student independence;
- More effective management of challenging behaviors.

Despite positive developments, important challenges remain regarding autism-specific training, institutional support, and educational resources in Albania.

## 7. Recommendations

Based on the findings of this study, the following recommendations are proposed:

- a) Development of specialized autism-focused training programs for teaching assistants;
- b) Continuous professional development opportunities;
- c) Improvement of institutional and legal frameworks;
- d) Strengthening interdisciplinary collaboration among educators, specialists, and families;
- e) Increased structural support for rural schools and underserved communities.

## References

- ASCAP. (2023). Professional standards for teaching assistants.
- Giangreco, M. F. (2010). Teacher assistant supports in inclusive schools.
- Gómez-Marí, I., Sanz-Cervera, P., & Tárraga-Mínguez, R. (2022). Teachers' attitudes toward autism spectrum disorder.
- Ianes, D. (2015). Insegnanti di sostegno: ruolo, competenze e formazione.
- Jackson, C., Sharma, U., Salend, S. J., & Loreman, T. (2021). Teachers' perceptions of their work with teacher assistants.
- UNESCO. (2020). The use of teacher assistants and education support personnel in inclusive education.
- Webster, R., & De Boer, A. (2019). Teaching assistants and inclusion.

## EARLY CHILDHOOD EDUCATION IN THE ERA OF DIGITALIZATION: RISKS, OPPORTUNITIES, AND POLICY IMPLICATIONS

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### **Abstract**

The rapid digitalisation of contemporary society has profoundly transformed Early Childhood Education (ECE), reshaping pedagogical practices, learning environments, and the roles of educators, families, and institutions. Digital technologies, including tablets, educational applications, interactive platforms, and artificial intelligence-driven tools, are increasingly integrated into early learning contexts, offering new possibilities for enhancing children’s cognitive, linguistic, and socio-emotional development. This paper examines the opportunities and risks associated with digitalisation in ECE, emphasising the need for a developmentally appropriate, ethically grounded, and pedagogically balanced approach.

This paper argues that digitalisation in ECE should not be understood as a replacement for traditional pedagogical approaches, but rather as a complementary tool embedded within human-centred, play-based, and relational learning frameworks. By proposing a balanced and reflective model of digital integration, the study highlights the importance of educator competence, institutional policy, and family engagement in ensuring that digital technologies support holistic child development and contribute positively to educational quality and equity in early childhood education.

The paper further discusses best practices for digital integration, highlighting the roles of educators, parents, and policymakers. It argues that digitalization should not replace traditional play-based pedagogy, but rather complement it within a balanced and developmentally appropriate framework. The paper concludes by suggesting future research directions and policy considerations, emphasizing the need for a holistic approach that prioritizes children’s well-being while embracing technological innovation.

**Keywords:** early childhood education; digitalization; child development; screen time; edtech in preschool; education policy

## **Introduction**

Digital transformation has become one of the defining features of 21st-century education systems. Across the globe, educational institutions are integrating digital tools into curricula, reshaping teaching methodologies and learning environments. This shift is particularly evident in Early Childhood Education (ECE), where children are increasingly exposed to digital technologies from a very young age.

On the one hand, digital tools can enrich learning experiences by supporting play-based learning, creativity, personalisation, and inclusion, particularly for children with diverse learning needs. When thoughtfully designed and guided by educators, digital resources may foster early numeracy, literacy, and problem-solving skills, while facilitating communication and collaboration between teachers and parents. Digital platforms can also support educators through professional development, formative assessment, and access to innovative teaching resources.

On the other hand, the increasing presence of digital media in early childhood raises critical concerns related to excessive screen time, reduced physical activity, potential impacts on attention and social interaction, and the risk of widening educational inequalities due to unequal access to technology. Ethical challenges such as data protection, commercialisation of childhood, and children's digital rights further complicate the integration of technology into early educational settings.

The integration of digital tools in ECE is driven by multiple factors, including technological innovation, globalization, and the demand for digital literacy. As digital competence becomes a fundamental skill for participation in modern society, it is increasingly included alongside traditional competencies such as literacy and numeracy (Nikaj, 2020). However, early childhood represents a sensitive developmental period characterized by rapid cognitive, emotional, and social growth. The introduction of digital technologies during this stage raises fundamental questions regarding their impact on child development.

The COVID-19 pandemic accelerated this transformation, forcing educators and families to rely heavily on digital tools to maintain

continuity in education. While this transition demonstrated the potential of digital technologies to support learning, it also exposed significant disparities in access, digital literacy, and readiness among educators and parents.

This paper aims to critically analyse the implications of digitalization in early childhood education. Specifically, it seeks to:

- Examine the pedagogical opportunities offered by digital technologies;
- Identify developmental and ethical risks associated with early digital exposure;
- Explore best practices for effective integration;
- Propose recommendations for educators, parents, and policymakers.

## **1. Literature Review and Theoretical Framework**

### **1.1 Digitalization and Learning Theories**

The integration of digital technologies in Early Childhood Education (ECE) can be critically examined through the lens of foundational learning theories, particularly constructivism and socio-cultural theory. Constructivist theory, as articulated by Piaget (1952), posits that children actively construct knowledge through interaction with their environment. In this context, digital technologies—especially interactive applications, gamified platforms, and adaptive learning systems, support experiential learning by enabling children to explore, manipulate, and engage dynamically with educational content. These tools extend traditional play-based learning approaches emphasized in the Albanian Preschool Curriculum Framework (MASH) by introducing technologically enriched environments that foster discovery and active engagement.

Complementing this perspective, Vygotsky's sociocultural theory (1978) emphasizes that learning is fundamentally mediated by social interaction and cultural tools. Digital platforms function as mediational tools that scaffold children's learning within their Zone of Proximal Development (ZPD). Features such as guided feedback, collaborative activities, and adaptive prompts provide structured support that aligns with MASH principles of teacher-guided instruction and developmental appropriateness.

However, the integration of digital technologies also presents pedagogical challenges. While digital tools can facilitate interaction, excessive reliance on screen-based activities may limit opportunities for face-to-face communication, peer collaboration, and socio-emotional development. From a socio-cultural perspective, this raises concerns about reduced opportunities for the development of communication skills, empathy, and cooperative learning. Therefore, a balanced pedagogical approach is essential, where digital technologies complement rather than replace interpersonal interactions, ensuring holistic child development.

### **1.2 Digital Literacy as a Core Competence**

Digital literacy has become a fundamental competence in contemporary society, extending beyond technical proficiency to include cognitive, social, and ethical dimensions. In early childhood education, digital literacy encompasses the ability to engage critically and creatively with digital content, rather than merely operating devices.

Research indicates that appropriately guided exposure to digital technologies can enhance cognitive development and problem-solving skills (Palaiologou et al., 2021). Within the framework of multiliteracies theory (New London Group, 1996), literacy is understood as multimodal, incorporating visual, digital, and interactive communication forms. Digital platforms provide opportunities for children to develop these competencies through diverse and engaging modes of representation.

Moreover, self-determination theory (Deci & Ryan, 2000) explains how digital learning environments can enhance motivation by supporting autonomy, competence, and engagement. These dimensions are closely aligned with the key competencies outlined in the Albanian preschool curriculum, which emphasize independence, creativity, and active participation in learning processes.

At the end, digital literacy must also include ethical awareness and responsible use. Children need to be guided in understanding digital safety, appropriate behaviour, and the responsible use of technology. This aligns with both MASH guidelines for holistic child development and ASCAL standards on competency-based education,

which highlight the importance of developing critical and responsible citizens.

### **1.3 Enhanced Learning and Engagement**

Digital technologies significantly enhance engagement by creating interactive, multimedia-rich learning environments that support diverse learning styles. Through gamification, animation, and adaptive systems, digital platforms provide stimulating learning experiences that promote active participation and sustained attention. From a constructivist perspective, these technologies enable children to engage in hands-on learning experiences, reinforcing knowledge construction through exploration and feedback (Piaget, 1952). Similarly, Vygotsky's sociocultural framework highlights the role of digital tools in facilitating guided learning and collaborative interaction, even within technologically mediated environments.

Empirical evidence suggests that well-designed digital tools contribute to improvements in vocabulary acquisition, numeracy, and problem-solving skills (Kasmiati, 2025). Additionally, adaptive learning systems allow for personalized learning, adjusting content according to the learner's pace and ability. This aligns with MASH's emphasis on individualized approaches and differentiated instruction. Furthermore, from a contemporary education perspective, such practices reflect quality standards related to:

- learner-centred pedagogy
- innovation in teaching methods
- continuous assessment and feedback

Thus, digital technologies contribute not only to increased engagement but also to improved learning outcomes and pedagogical effectiveness.

### **1.4 Early Exposure to STEM Skills**

Digitalization facilitates early exposure to STEM (Science, Technology, Engineering, and Mathematics) concepts through interactive and exploratory learning experiences. Tools such as coding games, simulations, and digital experiments encourage logical reasoning, creativity, and analytical thinking.

This aligns with experiential learning theory (Kolb, 1984), which emphasizes learning through active experimentation and reflection, as

well as constructionism (Papert, 1980), which highlights the importance of creating and manipulating digital artefacts. Through these processes, children develop foundational computational thinking skills that support future academic success.

The Albanian preschool curriculum promotes competencies such as curiosity, problem-solving, and inquiry-based learning. Digital STEM tools directly support these objectives by providing structured opportunities for exploration and experimentation. Furthermore, this aligns with contemporary education competency-based standards, which emphasize:

- critical thinking
- innovation and creativity
- digital competence

Early exposure to STEM through digital technologies thus contributes to both cognitive development and alignment with broader European educational priorities.

### **1.5 Accessibility, Inclusivity, and Equity**

One of the most significant contributions of digitalization in early childhood education is its potential to promote equity and inclusion. Digital platforms enable access to high-quality educational resources for children in remote or underserved areas, supporting the principles of educational equity emphasized in MASH policies.

The concept of inclusivity is further reinforced by Universal Design for Learning (UDL), which advocates for flexible and adaptive learning environments. Digital tools naturally support UDL principles by offering multiple means of representation, engagement, and expression. Assistive technologies play a crucial role in supporting children with special educational needs, enabling full participation in educational activities. These tools align with Vygotsky's perspective on mediated learning and reflect contemporary education standards on:

- inclusiveness and equal opportunity
- social responsibility in education

In the Albanian context, digitalization contributes to reducing disparities between urban and rural education systems and promoting equal access to learning opportunities.

### **1.6 Strengthening Home-School Connections**

Digital technologies enhance collaboration between families and educational institutions, reinforcing a holistic approach to child development. According to Bronfenbrenner's ecological systems theory (1979), children's development is influenced by interactions between multiple environments, particularly the family and school.

Digital platforms enable parents to monitor progress, communicate with educators, and actively engage in their children's learning. This reflects Epstein's framework of parental involvement (2011), which highlights communication and collaboration as key factors in educational success. In alignment with MASH curriculum principles, parental engagement is considered essential for supporting learning outcomes. Digital communication tools strengthen this relationship by providing continuous, accessible, and structured interaction. Thus, digitalization not only enhances classroom learning but also strengthens the broader educational ecosystem, contributing to more effective and inclusive education systems.

## **2. Risks and Challenges**

### **2.1 Cognitive and Developmental Risks**

While digital technologies offer numerous educational benefits, their excessive or unregulated use in early childhood may pose significant cognitive and developmental risks. Research has increasingly highlighted the association between prolonged screen exposure and adverse developmental outcomes, including reduced attention spans, delayed language acquisition, and impaired executive functioning (Yelizarova et al., 2025). These findings raise critical concerns regarding the appropriateness and intensity of digital engagement in early learning contexts.

From a developmental perspective, early childhood is a crucial period for sensory and motor development. Traditional forms of play—such as physical, tactile, and social interactions—support neural development by engaging multiple sensory modalities. In contrast, digital activities often provide limited sensory stimulation, potentially restricting experiential learning opportunities essential for brain development. This concern is consistent with Piaget's theory, which emphasizes the importance of concrete, hands-on experiences in the early stages of cognitive development (Piaget, 1952).

Furthermore, emerging evidence suggests that excessive screen time may negatively impact sleep patterns and emotional regulation. Exposure to screens, particularly before bedtime, has been linked to disruptions in circadian rhythms, which can affect both cognitive functioning and behavioural stability. Consequently, the integration of digital tools in early childhood education must be carefully balanced to ensure that developmental needs are not compromised.

## **2.2 Social and Emotional Development**

Digitalization also raises important concerns regarding children's social and emotional development. Early childhood is characterized by the development of interpersonal skills, including empathy, cooperation, and communication. These competencies are primarily cultivated through direct, face-to-face interaction with peers and adults.

From the perspective of Vygotsky's sociocultural theory (1978), social interaction is fundamental to cognitive and emotional development. Learning occurs through dialogue, collaboration, and shared experiences within a social context. Excessive reliance on digital devices may reduce opportunities for such interactions, limiting children's ability to develop essential social skills.

Children who frequently engage with digital technologies in isolation may experience challenges in communication and relationship-building. The absence of real-time feedback, non-verbal cues, and emotional exchange in digital environments can hinder the development of social awareness and empathy. Moreover, reduced peer interaction may affect cooperative learning and the development of conflict-resolution skills.

Therefore, while digital tools can supplement learning, they cannot replace the richness of human interaction. Educational practices must ensure that digital engagement is complemented by meaningful social experiences that support emotional and relational development.

## **2.3 Privacy and Cybersecurity**

The increasing use of digital technologies in early childhood education introduces significant concerns related to privacy and cybersecurity. Young children are particularly vulnerable in digital environments, as they lack the cognitive maturity to recognize and

respond to online risks. Educational platforms often collect personal data, including usage patterns and behavioural information, raising ethical concerns about data protection and digital surveillance.

Regulatory frameworks such as the Children's Online Privacy Protection Act (COPPA, 2025) provide safeguards by requiring parental consent for data collection and limiting the use of children's personal information. However, rapid technological advancements and the proliferation of digital platforms continue to challenge the effectiveness of existing regulatory mechanisms. From an ethical perspective, the responsible use of digital technologies in early childhood education must prioritize data security, transparency, and accountability. Educators and institutions must ensure that digital tools comply with data protection standards and that parents are fully informed about data practices.

In addition, digital literacy education should include awareness of privacy and safety, even at early stages, fostering a culture of responsible and secure digital engagement. This aligns with broader international principles advocating for child rights in digital environments, as emphasized by UNESCO and OECD frameworks. Despite its potential to enhance educational access and inclusion, digitalization, also, may also exacerbate existing inequalities if access to technology is uneven. Digital inequality remains a significant challenge, particularly in contexts characterized by socio-economic disparities and limited technological infrastructure. Children from disadvantaged backgrounds may face barriers such as a lack of access to digital

### **3. Best Practices for Digital Integration**

#### **3.1 Balanced Screen Time**

A balanced and pedagogically grounded approach to screen use is essential in early childhood education. Rather than focusing exclusively on limiting screen time, contemporary perspectives emphasize the importance of content quality, learning context, and interactive engagement (AAP, 2026). This shift reflects a growing recognition that not all screen use has the same developmental impact; educational, interactive, and socially mediated digital activities can support learning when thoughtfully integrated.

From a developmental standpoint, digital tools should complement—not replace—traditional play-based learning experiences. Physical play, social interaction, and creative activities remain fundamental to children’s cognitive, emotional, and motor development. In alignment with constructivist principles and the Albanian Preschool Curriculum (MASH), children benefit from diverse learning environments where digital engagement is balanced with hands-on exploration and peer interaction. A balanced approach therefore involves integrating digital tools into a broader pedagogical framework that prioritizes holistic development. This includes ensuring that screen-based activities are purposeful, time-bound, and embedded within interactive and socially meaningful contexts.

### **3.2 Developmentally Appropriate Design**

The effectiveness of digital technologies in early childhood education largely depends on their alignment with children’s developmental stages. Developmentally appropriate digital design requires that educational content be intuitive, interactive, and responsive to children’s cognitive and emotional needs. Tools that incorporate age-appropriate challenges, clear feedback, and engaging visual elements are more likely to support meaningful learning outcomes. Theoretical perspectives, particularly those of Piaget (1952) and Vygotsky (1978), emphasize that learning must correspond to children’s developmental readiness and be supported through appropriate scaffolding. Digital tools that provide guided interaction and adaptive learning pathways can effectively support these processes. International frameworks, including UNESCO & UNICEF (2024), highlight the importance of aligning technological applications with pedagogical objectives. This implies that digital tools should not be adopted solely for their technological capabilities, but for their ability to enhance learning outcomes, foster engagement, and support developmental goals. In the Albanian context, this principle aligns with MASH guidelines emphasizing individualized learning, developmental appropriateness, and child-centred pedagogy standards requiring coherence between curriculum objectives and teaching methods.

### **3.3 Teacher Training and Professional Development**

Effective integration of digital technologies in early childhood education requires well-prepared and digitally competent educators. Teachers play a central role in mediating digital learning experiences, selecting appropriate tools, and ensuring that technology use aligns with pedagogical goals. Continuous professional development is therefore essential. Training programs should focus on the development of:

- digital pedagogical competencies,
- classroom management in technology-rich environments,
- ethical and responsible use of digital tools,
- critical evaluation of digital content and applications.

From a sociocultural perspective (Vygotsky, 1978), teachers act as mediators who guide children's learning experiences, including digital interactions. Their ability to scaffold learning and create meaningful learning opportunities is critical in ensuring that digital tools are used effectively. In line with contemporary education quality standards, teacher competencies are a key indicator of educational quality. Institutions are expected to support continuous professional development and innovation in teaching practices. Similarly, MASH policies emphasize the importance of building teachers' capacities to adapt to evolving educational technologies. Thus, investing in teacher training is a prerequisite for the successful and sustainable integration of digital technologies in early childhood education.

### **3.4 Collaborative Approach**

The successful integration of digital technologies in early childhood education requires a collaborative, multi-stakeholder approach involving educators, parents, technology developers, and policymakers. Each stakeholder plays a distinct yet interconnected role in shaping children's digital learning environments. From a theoretical perspective, Bronfenbrenner's ecological systems theory (1979) underscores the importance of interconnected systems in child development. Digital education is most effective when there is coherence and collaboration across these systems, particularly between the home and educational institutions. Parents play a crucial role in guiding children's digital experiences, reinforcing learning at home, and ensuring appropriate use of technology. Educators, in turn, provide structured learning environments and pedagogical expertise.

Developers are responsible for creating age-appropriate and ethically sound digital tools, while policymakers establish regulatory frameworks that ensure safety, quality, and equitable access. This collaborative model is consistent with MASH principles, which emphasize parental involvement and community engagement, as well as contemporary modern standards of education that highlight stakeholder participation and accountability in educational processes. A coordinated and collaborative approach ensures that digital technologies are used in ways that support not only academic development but also the social, emotional, and ethical growth of children. Ultimately, such an approach contributes to a more holistic, inclusive, and sustainable model of digital integration in early childhood education.

### **5. Role of Educators and Parents in Digital Learning**

The effective integration of digital technologies in early childhood education depends significantly on the active and complementary roles of both educators and parents. As primary agents in children's learning environments, they collectively shape the quality, purpose, and outcomes of digital engagement. Their involvement is essential in ensuring that digital tools are used in developmentally appropriate, pedagogically sound, and ethically responsible ways.

Educators play a central role in designing, implementing, and evaluating digital learning experiences. From a pedagogical perspective, teachers act as facilitators who mediate children's interactions with digital tools, ensuring alignment with learning objectives and developmental needs. Drawing on Vygotsky's sociocultural theory (1978), educators provide scaffolding that supports children's learning within their Zone of Proximal Development, guiding them toward higher levels of understanding. In digital contexts, this involves selecting appropriate applications, structuring meaningful activities, and providing guidance that transforms technology from a passive medium into an active learning resource.

Moreover, educators are responsible for integrating digital tools within a broader child-centred and play-based curriculum, consistent with the principles of the Albanian Preschool Curriculum (MASH). Digital technologies must be purposefully embedded into learning experiences that promote exploration, creativity, and interaction, rather than used as isolated or purely entertainment-based activities. This reflects contemporary quality standards, which emphasize learner-centred pedagogy, innovation in teaching, and alignment between instructional methods and educational outcomes.

In parallel, parents play a crucial role in shaping children's digital habits within the home environment. Their influence extends beyond monitoring screen time to actively guiding how children interact with digital content. Strategies such as co-viewing, setting clear boundaries, and modelling responsible digital behaviour are essential in fostering healthy and productive digital engagement. Co-viewing, in particular, allows parents to engage in shared learning experiences with their children, facilitating discussion, reflection, and deeper understanding of digital content.

Research indicates that parental involvement in children's digital learning significantly enhances educational outcomes while mitigating potential risks associated with excessive or inappropriate technology use. When parents provide active guidance and supervision, children are more likely to develop critical thinking skills, responsible digital habits, and positive learning attitudes. This aligns with Bronfenbrenner's ecological systems theory (1979), which highlights the interconnected influence of family and educational environments on child development.

Furthermore, effective collaboration between educators and parents strengthens the continuity of learning across home and school contexts. Regular communication, shared digital platforms, and mutual understanding of pedagogical goals ensure consistency in children's digital experiences. This collaborative approach supports not only academic development but also social, emotional, and ethical growth.

In conclusion, the successful integration of digital technologies in early childhood education requires a shared responsibility between educators and parents. While educators provide structured, pedagogically grounded learning experiences, parents reinforce these experiences through guided engagement at home. Together, they form a cohesive support system that maximizes the benefits of digitalization while safeguarding children's holistic development.

## **6. Policy and Regulatory Implications of Digitalization in Early Childhood Education**

Policymakers play a critical role in shaping the development, implementation, and sustainability of digital education systems in early childhood contexts. As digital technologies become increasingly embedded in educational environments, the need for comprehensive and forward-looking policy frameworks has become more urgent. Effective policies must address multiple dimensions, ensuring that digital integration supports educational quality while safeguarding children's rights and well-being.

One of the primary areas of policy concern is data protection and privacy. Young children are particularly vulnerable in digital environments, as they lack the capacity to understand the implications of data sharing and online interactions. Educational technologies often involve the collection and processing of personal data, making it essential for policymakers to establish clear regulations that govern data use, storage, and access. Policies should ensure transparency, parental consent, and strict limitations on data exploitation, thereby protecting children from potential misuse of their personal information.

Equally important is the regulation of content quality and accreditation. Digital educational materials must meet established pedagogical standards and align with developmental objectives appropriate for early childhood learners. Regulatory bodies are responsible for evaluating and certifying digital content to ensure that it is educationally meaningful, age-appropriate, and free from harmful or misleading information. This aligns with broader educational quality assurance principles, which highlight the importance of coherence between curriculum objectives, teaching methodologies, and learning outcomes (Nikaj, I 2026).

Another key dimension involves infrastructure development, particularly in ensuring equitable access to digital technologies. We must address disparities in technological infrastructure by investing in reliable internet connectivity, digital devices, and educational platforms, especially in underserved or rural areas. Without such investments, digitalization risks reinforcing existing inequalities rather than reducing them. In this regard, international organizations such as UNESCO & UNICEF (2024) advocate for inclusive digital education policies that guarantee equal access to learning opportunities for all children, regardless of socio-economic background.

Furthermore, effective digital integration requires sustained investment in teacher training and professional support. We must ensure that educators are equipped with the necessary competencies to integrate digital tools into their pedagogical practices. This includes not only technical skills but also digital pedagogy, ethical awareness, and the ability to critically evaluate educational technologies. Continuous professional development programs are therefore essential for maintaining quality and innovation in digitally enriched learning environments. Beyond these structural aspects, ethical considerations must remain at the core of all policy initiatives. There is a growing concern that digital technologies in education may be driven by commercial interests rather than educational goals. Policymakers must therefore establish safeguards to ensure that technological adoption prioritizes children's developmental needs, learning outcomes, and well-being. This includes regulating commercial influences, preventing the commercialization of educational data, and promoting transparency in the design and use of digital educational tools. From a broader perspective, policy frameworks must adopt a child-centred and rights-based approach to digitalization. This involves balancing innovation with protection, ensuring that digital technologies enhance learning while minimizing risks. Effective policies should promote ethical standards, inclusivity, and sustainability, thereby supporting the holistic development of children in digitally mediated learning environments.

In conclusion, the successful integration of digital technologies in Early Childhood Education depends not only on pedagogical practices but also on holistic and coherent policy frameworks. By addressing issues of privacy, quality, access, and ethics, policymakers can create an enabling environment in which digitalization contributes positively to educational development, equity, and long-term societal progress.

## 7. Discussion and Conclusion

The findings of this paper highlight the complexity of digitalization in early childhood education. While digital tools offer significant advantages, their effectiveness depends on how they are implemented. A key insight is that digitalization is not inherently beneficial or harmful; rather, its impact is shaped by contextual factors such as usage patterns, content quality, and socio-economic conditions. The challenge for educators and policymakers is to strike a balance between innovation and tradition. Digital tools should be integrated in ways that enhance, rather than replace, play-based learning. Digitalization presents a transformative opportunity for early childhood education, offering innovative tools to enhance learning and inclusion. However, its implementation must be guided by developmental science, equity considerations, and ethical standards. A child-centred, balanced approach is key to harnessing the benefits of digitalization while mitigating its risks.

The digitalization of early childhood education presents a complex landscape of possibilities and challenges. On one hand, digital tools offer innovative ways to enhance learning, personalize instruction, and promote inclusion. On the other hand, they raise concerns about developmental appropriateness, equity, and safety. A balanced integration of technology, guided by developmental science, pedagogical principles, and ethical standards, is essential. Digital tools should complement, not replace, traditional play-based and social learning experiences. Educators and parents play a critical role in mediating children's digital interactions, ensuring that technology supports rather than hinders holistic development. Moreover, policy and regulation must evolve to address the unique needs of young learners in the digital age. This includes safeguarding data privacy, ensuring equitable access, and providing clear guidelines for responsible use.

Ultimately, the goal is to create a digital learning ecosystem that is inclusive, safe, and developmentally enriching, one that prepares children not only for academic success but also for thoughtful, responsible participation in a digital society. Digitalization presents both opportunities and challenges for early childhood education. While it offers innovative solutions for enhancing learning and promoting inclusivity, it also raises significant concerns related to development, equity, and privacy. A holistic approach, combining balanced use, quality design, stakeholder collaboration, and strong policy frameworks is essential for maximizing benefits and minimizing risks. We think that future research should focus on long-term developmental impacts and explore innovative pedagogical models that integrate digital and traditional learning approaches within the frame of the Albanian education system.

### **Bibliography**

- American Academy of Paediatrics. (2025). *Early childhood development and screen time toolkit*. <https://www.aap.org/en/patient-care/media-and-children/center-of-excellence-on-social-media-and-youth-mental-health/early-childhood-development-and-screen-time-toolkit/>
- Bronfenbrenner, U. (1979). *The ecology of human development*. Harvard University Press.
- Brown, K. C. (2015). *CEELO annotated bibliography: Using technology in early childhood classrooms*. Centre on Enhancing Early Learning Outcomes. [http://ceelo.org/wp-content/uploads/2015/07/ceelo\\_annotated\\_bib\\_ece\\_tech\\_final\\_web.pdf](http://ceelo.org/wp-content/uploads/2015/07/ceelo_annotated_bib_ece_tech_final_web.pdf)
- Deci, E. L., & Ryan, R. M. (2000). The “what” and “why” of goal pursuits: Human needs and the self-determination of behaviour. *Psychological Inquiry*, 11(4), 227–268.
- Epstein, J. L. (2011). *School, family, and community partnerships: Preparing educators and improving schools* (2nd ed.). Routledge.
- European Commission. (2021–2027). *Digital Education Action Plan (2021–2027): Policy background*. European Education Area. <https://education.ec.europa.eu/focus-topics/digital-education/actions/plan>
- Eurydice. (2026). *Albania: Early childhood education and care*. European Commission. <https://eurydice.eacea.ec.europa.eu/eurypedia/albania/early-childhood-education-and-care>
- Kolb, D. A. (1984). *Experiential learning: experience as the source of learning and development*. Englewood Cliffs, NJ: Prentice Hall.
- Liu, J., Chen, M., He, H., Liu, H., Luo, W., & Li, H. (2025). Forms and functions innovation: A scoping review of digital and intelligence

- technologies in early childhood education practice. *AI, Brain and Child*, 1(8). <https://link.springer.com/article/10.1007/s44436-025-00010-6>
- Nikaj, I. (2019). Building the city (village) of the future with schools, young children, and families. *Journal of Awareness*, 4(3), 3359–366. <https://doi.org/10.26809/joa.4.027>
- Nikaj, I. (2019). *Expectations from future technologies and e-learning in higher education in Albania* (book chapter). In Y. Zhang & D. Cristol (Eds.), *Handbook of mobile teaching and learning*. Springer. [https://doi.org/10.1007/978-3-642-41981-2\\_43-2](https://doi.org/10.1007/978-3-642-41981-2_43-2)
- Nikaj, I. (2020). Early childhood education in Albania: The outcomes and new perspectives in Korça's region. *Proceedings of the 4th International Conference "Education Across Borders"* (Florina, Greece). (ISSN: 2241-8881).
- Nikaj, I. Building the city (village) of the future with schools, young children, and families. 2019. *JOURNAL OF AWARENESS*, 4(3), 3359-366 (2) (2019). <https://doi.org/10.26809/joa.4.027>
- Nikaj, I. Early Childhood Education in Albania: The Outcomes and New Perspectives in Korça's Region, *Proceedings of the 4th International Conference Education Across Borders*, Florina, Greece 2020, ISSN: 2241-8881.
- OECD. (2023). *Professional development for digital competencies in early childhood education and care: A systematic review* (OECD Education Working Papers No. 295). [https://www.oecd.org/en/publications/professional-development-for-digital-competencies-in-early-childhood-education-and-care\\_a7c0a464-en.html](https://www.oecd.org/en/publications/professional-development-for-digital-competencies-in-early-childhood-education-and-care_a7c0a464-en.html)
- Open Government Partnership: 2023–2025. *Digitalising the education system* (AL0094): <https://www.opengovpartnership.org/members/albania/commitments/AL0094/>
- Papadakis, S., & Kalogiannakis, M. (2017). Mobile educational applications for children: What educators and parents need to know. *International Journal of Mobile Learning and Organisation*, 11(3), 256–277. <https://doi.org/10.1504/IJMLLO.2017.10003925>
- Piaget, J. (1952). *The origins of intelligence in children*. International Universities Press.
- Ravšelj D, Keržič D, Tomažević N, Umek L, Brezovar N, et al. (2026) Correction: Higher education students' perceptions of ChatGPT: A global study of early reactions. *PLOS ONE* 21(5): e0349691. <https://doi.org/10.1371/journal.pone.0349691>
- UNESCO & UNICEF. (2024). *Global report on early childhood care and education: The right to a strong foundation*.

<https://www.unicef.org/media/158496/file/Global-report-on-early-childhoodcare-and-education-2024-1.pdf>

UNESCO. (2025). *Digital learning and transformation of education*.  
<https://www.unesco.org/en/digital-education>

UNESCO. (2026). *Inclusive preschool teaching methodology in Albania*.  
<https://www.unesco.org/en/early-childhood-education/inclusive-preschool-teaching-methodology-albania>

UNICEF Albania. *Early childhood development and learning*.  
<https://www.unicef.org/albania/early-childhood-development-and-learning>

Vygotsky, L. S. (1978). *Mind in society*. Harvard University Press.

## INCLUSION OF CHILDREN WITH MILD INTELLECTUAL DISABILITIES IN PRIMARY EDUCATION

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### **Abstract**

Inclusive education provides children with special educational needs with the opportunity to receive education within mainstream compulsory education settings. Their right to education represents a fundamental human right, guaranteed by both national and international legal frameworks.

The purpose of this study is to investigate the personal experiences of primary school teachers to assess whether the everyday reality of including children with mild intellectual disabilities in public education corresponds with contemporary inclusive education policies. The study presents the current situation of primary education in schools in the city of Tirana, focusing on the needs, attitudes, and capacities of schools and families in addressing this educational reality. Furthermore, the paper examines the evolution of the concept of inclusion and discusses both the benefits and challenges associated with educating children with special educational needs.

The methodology of this research is based on a mixed-methods approach, combining qualitative and quantitative methods. Data collection relied on both primary and secondary sources. Primary data were obtained through questionnaires administered to primary school teachers, while secondary data were collected from scientific publications and previous studies in the field.

The main finding of the study indicates that the inclusion of children with special educational needs in inclusive classrooms benefits not only these children but also contributes to the humanistic development of all students within the classroom environment. Moreover, inclusive practices provide

teachers with opportunities to enhance their professional competencies and improve their teaching approaches.

The study provides recommendations for teachers, parents, and school administrators regarding feasible improvements in the implementation of inclusive education policies for children with special educational needs within primary education.

**Keywords:**

students with special educational needs; inclusive education; individualized education plans; teaching assistants; teacher professional development.

**1. Introduction**

Inclusive education is recognized as one of the key paradigms embodied in the fundamental principles of contemporary educational curricula. At the same time, it remains a complex issue that generates significant debate regarding its practical implementation within teaching and learning processes. Therefore, it is essential to ensure that the inclusion of children with special educational needs is implemented appropriately to achieve the most productive educational outcomes for them (Santos et al., 2010).

Children with special educational needs have the right to education, inclusion, and personal development alongside their peers, without experiencing exclusion or segregation. Inclusive education provides numerous benefits by creating opportunities for children's socialization and supporting their holistic development according to their individual potential (Sunko, Rogulj, & Živković, 2018).

The inclusive education approach is based on the fundamental principle that all children should learn together, regardless of their individual differences and challenges. Children should participate together not only in classroom instruction and learning activities but also in extracurricular activities and educational visits. Shared experiences, both inside and outside the classroom, create opportunities for social and academic development for all students (Chen, Huang, Liu, & Wang, 2022, p. 3).

Inclusive education extends beyond simply placing children with special educational needs in the same classroom as their typically developing peers. Rather, it aims to create an educational environment in which every child feels valued, independent,

supported, and encouraged to achieve their full potential across different areas of development (Aykir & Çifci Tekinarslan, 2020).

The Albanian state, based on the Convention on the Rights of the Child and European legislation on education, through its central and local institutions, provides opportunities for the education of children with disabilities. This commitment is also reflected in the Constitution of the Republic of Albania and in Law No. 69/2012 on the Pre-University Education System, particularly Articles 63–64. The increasing number of children with special educational needs enrolled in mainstream schools demonstrates a growing social awareness regarding their rights and educational needs.

Historically, different attempts have been made to define and categorize children with special educational needs. The literature has included various terms such as handicapped students, disabled students, students with developmental delays, students with learning difficulties, students facing social barriers, and students experiencing educational difficulties (Qoku, 2005).

Currently, within academic and professional communities, greater emphasis is placed on the use of the concept “children with special educational needs,” which reflects a more inclusive and rights-based perspective. A child or student with special educational needs is considered one who differs from the average learner in terms of cognitive characteristics, sensory abilities, communication skills, social behaviour, or physical characteristics (Chiapasco, 2010).

Children with mild intellectual disabilities require support through specialized and clearly structured interventions. To facilitate their development, individualized education plans are often designed and implemented, adapted to their specific educational needs. Parents have the right to participate in discussions and decision-making processes related to their child’s education and development.

Teachers, on the other hand, demonstrate interest and willingness to support this process (Sugden, 1989; Petley, 1994; Chen et al., 2022). Therefore, both parents and teachers share a common objective: to assist children in adapting, integrating, and developing the necessary abilities to participate in learning and socialization processes. Parents and teachers, particularly teaching assistants, should consider each other as equal partners in decision-making and educational planning.

Teaching assistants collaborate with teachers, parents, and other professionals to address individual needs and to create a positive and inclusive learning environment for all students in the classroom (Giangreco et al., 2014; Sharma & Salend, 2016; Kokoshi, 2022).

According to Eden Training Solutions (2025), the role of the teaching assistant is essential in providing additional specialized support and ensuring equal learning opportunities for all categories of students within inclusive classrooms. The contribution of teaching assistants is particularly important in curriculum adaptation and instructional planning according to the educational needs of children requiring additional support. Their involvement also helps prevent bullying and discriminatory attitudes among peers, while promoting children's emotional well-being within the educational environment.

Furthermore, teaching assistants support cooperation among teachers, parents, and other professionals in order to address individual educational needs and establish an effective and supportive learning environment for all students. Their contribution positively influences language development, literacy improvement, student engagement, and motivation. It should be emphasized that the presence of teaching assistants supports not only children with special educational needs but also classroom teachers and all students by fostering a more inclusive educational culture (Fisher et al., 2014; Sharma & Salend, 2016).

The development of concepts and representations, students' perception and understanding of learning materials, identification of essential elements of phenomena, and effective knowledge acquisition become easier and more successful through the systematic use of concrete, visual, and technological learning materials (Sina & Lutaj, 2023).

## **2. Methodology**

This study employed a mixed-methods research design, combining qualitative and quantitative approaches. A review and analysis of previous studies in the field contributed to the identification of the main theoretical principles and key research variables. Meanwhile, questionnaires administered to teachers provided quantitative data regarding teachers' pedagogical and instructional experiences and

practices related to the inclusion of children with special educational needs within primary schools in the city of Tirana.

The main object of this study is the inclusion of students with special educational needs in primary education in the city of Tirana. Particular attention was given to children with mild intellectual disabilities as the focus group of the research.

The study relied on both primary and secondary sources of data. Primary data were collected through questionnaires administered to teachers and parents, while secondary data were obtained through the analysis of scientific books, research articles, and academic publications related to inclusive education and human resource development. Statistical software applications were used to facilitate data processing and analysis.

The quantitative component of the research was based primarily on the use of questionnaires, which enabled the collection of empirical data from the selected population. This approach was considered appropriate due to its effectiveness in gathering information regarding participants' experiences, perceptions, and attitudes toward inclusive education practices.

The questionnaire was designed as a survey instrument consisting of 11 questions divided into two main sections. The first section collected demographic information about the participants, while the second section focused on teachers' perceptions regarding the level of inclusion of children with special educational needs in primary education.

A total of 212 respondents participated in the survey, of whom 199 valid responses were classified and included in the final data analysis.

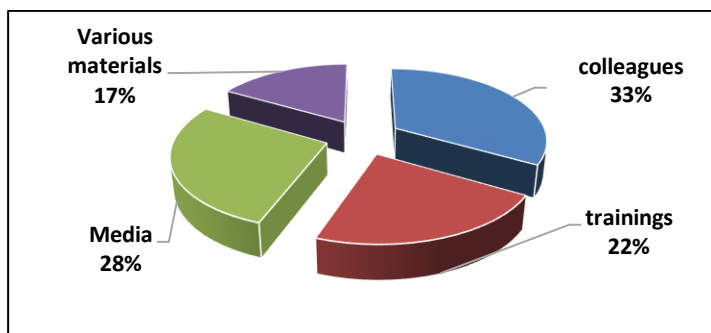
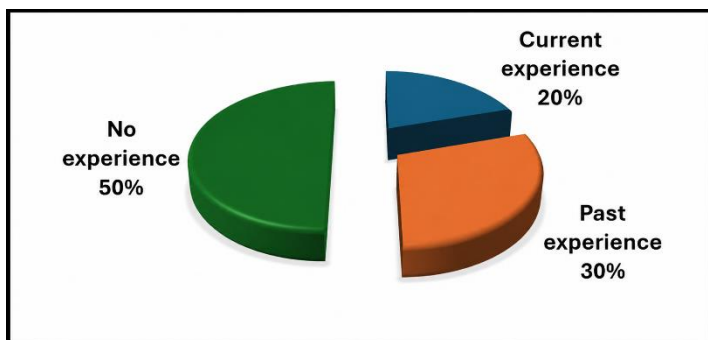
### **3. Results of the Study**

The research collected responses from 199 primary school teachers in the city of Tirana. Regarding educational qualifications, 137 participants (70%) reported holding a Professional Master's degree, 51 participants (27%) held a Master of Science degree, and 11 participants (5.5%) had completed a Bachelor-level qualification.

Teachers' experience in working with children with mild intellectual disabilities represents an important variable influencing their professional performance and readiness to implement inclusive practices. For this reason, participants were categorized into three

groups: teachers with no previous experience, teachers with previous experience, and teachers currently working with children with special educational needs.

The findings indicate that approximately half of the participating teachers had no previous experience teaching children with disabilities. Teachers who had previous experience working with children with disabilities represented approximately 30% of respondents, while those currently working with such children represented approximately 20% of the total sample.



The education and support of children with special educational needs require continuous professional development and adequate teacher preparation. Therefore, teachers were asked about the availability of qualitative resources, professional guidance, and mentoring opportunities related to inclusive education.

The findings show that more than half of the teachers had received information about children with disabilities during their university

studies, particularly through courses and specific training related to special education.

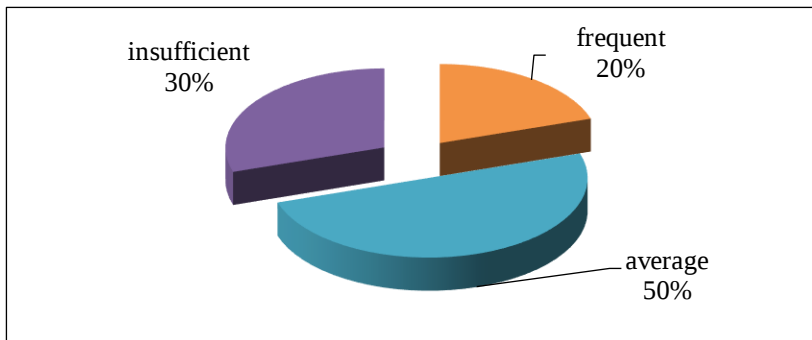
Regarding sources of information, the results indicate that a considerable number of teachers obtained knowledge about inclusive education policies through different professional training programs organized by educational institutions, non-governmental organizations, and the Ministry of Education. This suggests that professional training represents one of the primary mechanisms for disseminating essential information among education professionals.

Another important source of information regarding students with disabilities was the parents themselves. However, the level of parental support and cooperation was assessed by teachers as varying considerably, ranging from regular cooperation to occasional communication.

Approximately 70% of teachers reported having collaborative relationships with parents of children with disabilities. This indicates that parents and teachers maintain frequent and periodic communication, support each other's work, and cooperate to assist children in achieving educational objectives and developing social skills.

These findings suggest that teachers' and parents' expectations regarding the role of school and family, as well as the educational achievements of children with disabilities, share common points of agreement. Furthermore, the level of awareness regarding the importance of effective family-school partnerships appear to be relatively high.

In conclusion, teachers reported that parents supported the integration of children with disabilities mainly through participation in the assessment of children's individual needs, showing interest in their education, and attending consultations with teachers. However, the research also revealed that parents were less active in participating in broader school community activities and in proposing initiatives aimed at improving the education and inclusion of children with disabilities.



Cooperation between teachers and social service professionals is essential for establishing multidisciplinary support teams. Therefore, teachers were also asked about their collaboration with school psychologists and other specialists.

The findings indicate that approximately 30% of teachers cooperate with school psychologists in implementing inclusive education practices for children with disabilities. In a broader sense, these teachers communicate with psychologists, allow their participation in classroom activities and extracurricular activities, seek professional expertise from psycho-social support services, exchange information regarding students with disabilities, and consider their recommendations and guidance.

#### 4. Conclusions and Recommendations

The findings of the study indicate that most teachers participating in the research have had experience working with students with special educational needs in their classrooms. This demonstrates that the number of children requiring additional educational support within mainstream schools is increasing and that inclusive education is becoming an increasingly important component of the Albanian pre-university education system.

The main needs identified by teachers are related to practical guidance, continuous professional support, and effective strategies adapted to the specific characteristics of each child, as every student with special educational needs represents an individual case requiring personalized approaches. Teachers emphasized that classrooms and

school environments are still not fully adapted to adequately meet the needs of these children. Although teaching assistants are present in some educational settings, their role remains unclear, insufficiently structured, and limited in terms of professional support.

Teachers also expressed concerns regarding the sustainability of support provided to children with special educational needs as they progress to higher educational levels. According to teachers' experiences, support mechanisms tend to decrease over time, while social and institutional structures remain insufficient to guarantee these children opportunities for independent and meaningful participation in society. Consequently, the primary responsibility for long-term support often remains with families.

Students experiencing learning difficulties represent an important category within the broader group of children with disabilities and special educational needs. This category includes children and young people who demonstrate one or more difficulties or impairments related to reading, mathematical skills, written expression, or other learning processes that significantly affect academic achievement and everyday functioning.

Children with learning difficulties may have average or above-average intellectual abilities; however, they may experience challenges in acquiring, selecting, organizing, and retaining information. There are two fundamental reasons why these children should receive education within mainstream schools alongside their peers. First, social interaction contributes significantly to their personal and academic development. Second, inclusive environments reveal and strengthen their individual abilities and potential.

Every child, regardless of whether they have special educational needs or not, should have the opportunity to learn together with other children. No educational method, technique, or instructional strategy can replace the importance of human relationships and social interaction. Therefore, every education professional should actively support the process of inclusion.

Even when a child does not achieve the expected academic outcomes, their efforts and progress should be recognized and encouraged. Positive reinforcement helps children develop confidence, motivation, and the belief that they are capable of further improvement.

Teachers should attempt to understand the perspective of children with learning difficulties in order to identify the most appropriate learning approaches that facilitate comprehension and encourage children to express themselves through different forms of communication. Teachers must recognize that assessment and encouragement have a significant motivational impact on these students and should continuously provide emotional and academic support.

Respecting the abilities and potential of children with special educational needs requires society and educational institutions to assume greater responsibility in decision-making processes concerning their education and development. Schools should take appropriate measures to create inclusive learning environments, ensure equal opportunities, and encourage children to participate actively with their peers in acquiring new knowledge and social experiences.

Based on the findings of this research, several recommendations can be proposed:

- **For teachers:** Continuous professional development programs should be strengthened, focusing on practical strategies for inclusive teaching, differentiated instruction, classroom management, and individualized educational planning.
- **For schools and educational administrators:** Schools should develop clearer structures and responsibilities for teaching assistants, strengthen multidisciplinary cooperation, and ensure that educational environments are physically, socially, and pedagogically accessible for all students.
- **For parents:** Family participation should be expanded beyond individual communication with teachers toward active involvement in school life and decision-making processes related to inclusive education.
- **For educational policymakers:** Sustainable support mechanisms should be established to ensure continuity of assistance for children with special educational needs throughout all stages of education and beyond school.

Inclusive education should not be understood merely as the physical placement of children with special educational needs in mainstream classrooms. It represents a broader educational philosophy based on

equality, participation, dignity, and respect for individual differences. The successful implementation of inclusive education requires cooperation among teachers, families, schools, professionals, and society as a whole in order to guarantee that every child could develop and achieve their full potential.

## References

- Aykir, T., & Çifci Tekinarslan, İ. (2020). The views of teachers on inclusive education practices and children with special educational needs. *International Journal of Early Childhood Special Education*, 12(1), 1–15.
- Chen, L., Huang, Y., Liu, H., & Wang, X. (2022). Inclusive education and social participation of students with special educational needs: Challenges and opportunities. *Education Sciences*, 12(3), 1–15.
- Chiapasco, E. (2010). *I problemi di apprendimento*. Psicopedagogia.it.
- Eden Training Solutions. (2025). *The role of teaching assistants in supporting inclusive education and students with special educational needs*.
- Fisher, M., Frey, N., & Hattie, J. (2014). *Visible learning for literacy, grades K–12: Implementing the practices that work best to accelerate student learning*. Corwin.
- Galkieno, A. (2006). *The paradigm of integrated education in pupils with special needs*.
- Giangureco, M. F., Doyle, M. B., & Suter, J. C. (2014). Teacher assistants in inclusive schools. In L. Florian (Ed.), *The SAGE handbook of special education* (2nd ed., pp. 691–702). SAGE Publications.
- Kokoshi, X. (2022, June 9). Kuptimi i pozicionit të mësuesit ndihmës në klasat e zakonshme. *Portali Shkollor*. <https://www.portalishkollor.al/news/xhensila-kokoshi-kuptimi-i-pozicionit-te-mesuesit-ndihmes-ne-klasat-e-zakonshme>
- Law No. 69/2012. (2012). *On the pre-university education system in the Republic of Albania*. Republic of Albania.
- Petley, J. (1994). *Special educational needs: A teacher's guide*.
- Qoku, A. (2005). *Shkolla komunitet pranimi*. Silver.
- Santos, M., et al. (2010). Inclusive education: Challenges and perspectives for students with special educational needs.
- Sharma, U., & Salend, S. J. (2016). Teaching assistants in inclusive classrooms: A systematic analysis of the international research. *Australian Journal of Teacher Education*, 41(8), 118–134. <https://doi.org/10.14221/ajte.2016v41n8.7>
- Sina, Z., & Lutaj, L. (2023). Metodatat e mësimdhënies dhe mësuesi i së ardhmës. *Buletini Shkencor (Seria e Shkencave të Edukimit)*, 73, 1–15.

Sugden, D. (1989). *Leeds Education Authority Special Educational Needs Support Programme in Middle and High Schools: Evaluation Report 1*. University of Leeds.

Sunko, E., Rogulj, E., & Živković, I. (2018). Inclusive education and the development of children's social competencies. *Journal of Education and Social Research*, 8(2), 45–53.

**PARENTAL STRESS, FAMILY RESILIENCE, AND  
PSYCHOLOGICAL WELL-BEING IN FAMILIES OF CHILDREN  
WITH SPECIAL EDUCATIONAL NEEDS**

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**Abstract**

This study examines the relationship between parental stress, family resilience, and psychological well-being in families of children with Special Educational Needs (SEN) in Greece. A total of 300 parents participated by completing standardized self-report measures assessing parental stress, family resilience, and psychological well-being. Descriptive and correlational analyses were conducted to explore levels and associations among the examined variables. The findings indicate that most parents experience moderate levels of parental stress, while family resilience appears at relatively moderate to high levels. Psychological well-being was found to vary across participants. Family resilience was positively associated with psychological well-being and negatively associated with parental stress. Additionally, differences emerged according to place of residence, suggesting the relevance of contextual factors in parental experiences. The results highlight the importance of examining parental stress and family resilience jointly when considering parental well-being in families of children with SEN, particularly within the Greek context, where access to specialized family support services remains uneven.

**Keywords:** Early Childhood Education and Care; Family resilience; Parental stress; Psychological well-being; Special educational needs

## STRESI PRINDËROR, REZILIENCA FAMILJARE DHE MIRËQENIA PSIKOLOGJIKE NË FAMILJET E FËMIJËVE ME NEVOJA TË VEÇANTA ARSIMORE

### Abstrakt

Ky studim shqyrton marrëdhënien midis stresit prindëror, qëndrueshmërisë familjare dhe mirëqenies psikologjike në familjet e fëmijëve me Nevoja të Veçanta Arsimore (NVA) në Greqi. Në studim morën pjesë gjithsej 300 prindër, të cilët plotësuan instrumente të standardizuara vetë-raportuese për vlerësimin e stresit prindëror, qëndrueshmërisë familjare dhe mirëqenies psikologjike. U kryen analiza përshkruese dhe korrelacionale për të shqyrtuar nivelet dhe lidhjet midis variablave të studiuara. Gjetjet tregojnë se shumica e prindërve përjetojnë nivele të moderuara të stresit prindëror, ndërsa qëndrueshmëria familjare paraqitet në nivele relativisht të larta. Mirëqenia psikologjike u gjet të ndryshojë midis pjesëmarrësve. Qëndrueshmëria familjare lidhet pozitivisht me mirëqenien psikologjike dhe negativisht me stresin prindëror. Për më tepër, u konstatuan dallime sipas vendbanimit, duke theksuar rëndësinë e faktorëve kontekstualë në përvojat prindërore. Rezultatet nënvizojnë rëndësinë e shqyrtimit të stresit prindëror dhe qëndrueshmërisë familjare në mënyrë të përbashkët kur analizohet mirëqenia e prindërve në familjet e fëmijëve me NVA.

**Fjalë kyçe:** Mirëqenia psikologjike; Nevoja të veçanta arsimore; Qëndrueshmëria familjare; Stresi prindëror

### INTRODUCTION

Families of children with Special Educational Needs (SEN) often face long-term and multifaceted challenges that extend beyond educational contexts and permeate everyday family life. Parenting a child with SEN has been widely associated with increased caregiving demands, heightened emotional involvement, and continuous interaction with health, educational, and social support systems, resulting in elevated levels of parental stress and sustained caregiving strain (Cheng & Lai, 2023; Hastings, 2002; Hayes & Watson, 2013). In practice, these demands often extend beyond formal caregiving roles, shaping parents' everyday routines, decision-making, and long-term expectations. As such, parental stress has emerged as a central construct in research examining family adaptation in the context of disability and special educational needs.

In parallel, growing attention has been given to family resilience as a key process through which families respond to and manage adversity. Rather than being viewed as a fixed trait, resilience is increasingly conceptualized as a dynamic and relational process that enables families to adapt, reorganize, and maintain functioning under conditions of sustained stress (Aivalioti & Pezirkianidis, 2020; Walsh, 2003). Within this framework, resilience is understood as a protective process that may buffer the negative effects of stress and support adaptive family functioning, particularly in families facing long-term caregiving demands (Aivalioti & Pezirkianidis, 2020).

Psychological well-being represents an important outcome in families of children with SEN, as it reflects parents' capacity to sustain meaning, emotional balance, and functional engagement over time. Conceptualized as a multidimensional construct encompassing aspects such as purpose in life, environmental mastery, and positive relations, psychological well-being captures long-term adaptation rather than transient emotional states (Ryff, 1989). Research has consistently shown that elevated parental stress is associated with poorer psychological outcomes, while resilience-related processes may support more adaptive functioning under demanding conditions (Lysikatos & Georgiadou, 2023; Ryff, 1989).

However, despite the growing body of literature addressing parental stress, family resilience, and psychological well-being, these constructs are often examined in isolation, limiting a comprehensive understanding of how they interact as part of a broader system of family adaptation. The present study seeks to address this gap by examining parental stress, family resilience, and psychological well-being simultaneously in a sample of parents of children with SEN in Greece (Aivalioti & Pezirkianidis, 2020; Platsidou, 2025). By exploring levels and associations among these variables, the study aims to contribute empirical evidence supporting a more integrated understanding of family adaptation in the context of special educational needs. Additionally, attention is given to contextual factors, such as place of residence, in order to highlight potential structural influences on parental experiences.

In the context of Early Childhood Education and Care (ECEC), parents of young children with Special Educational Needs are in continuous interaction with early intervention services, kindergarten

settings, and multidisciplinary ECEC professionals, placing families at the intersection of educational, psychological, and support systems during a critical developmental period. Examining parental stress, family resilience, and psychological well-being within early childhood therefore provides insights that are directly relevant to ECEC practices and family-centered early intervention.

## **METHOD**

### **Participants**

The study involved a sample of 300 parents of children with Special Educational Needs (SEN) residing in Greece. Participants were recruited at a national level, allowing the inclusion of families from urban, semi-urban, and rural areas. The majority of participants were mothers, reflecting common caregiving patterns in Greece, where mothers continue to assume primary responsibility for daily child care. Children were of early childhood age, in line with the focus on Early Childhood Education and Care (ECEC).

### **Instruments**

Parental stress was assessed using the Parental Stress Scale (PSS), a self-report instrument designed to measure perceived stress related to the parenting role. Family resilience was measured with the Family Resilience Assessment Scale (FRAS), which evaluates key dimensions of family resilience consistent with systemic and relational approaches. Psychological well-being was assessed using Ryff's Psychological Well-Being Scales (PWB), grounded in a eudaimonic conceptualization of well-being and assessing multiple dimensions of optimal psychological functioning. All instruments are widely used in international research and have demonstrated satisfactory psychometric properties in previous studies.

### **Procedure**

Data were collected through an online questionnaire, which was disseminated nationally to parents of children with SEN. Participation was voluntary, and all respondents were informed about the purpose of the study prior to completing the questionnaire. Informed consent was obtained electronically from all participants. Anonymity and

confidentiality were ensured, and no identifying information was collected.

### **Data Analysis**

Data were analyzed using standard quantitative statistical procedures. Descriptive statistics were computed to examine levels of parental stress, family resilience, and psychological well-being. Pearson correlation analyses were conducted to explore associations among the main variables. Additionally, group comparisons were performed to examine differences according to selected demographic and contextual factors, including place of residence.

## **RESULTS**

### **Levels of Parental Stress, Family Resilience, and Psychological Well-Being**

Parents reported moderate levels of parental stress, with 67.3% of the sample falling within the moderate stress category. This pattern suggests sustained everyday strain rather than acute psychological distress among parents of young children with Special Educational Needs.

Family resilience levels were predominantly moderate to high, with 57.7% of parents reporting high family resilience, indicating the presence of adaptive family processes despite ongoing caregiving demands.

Psychological well-being scores were distributed across low, moderate, and high levels. The overall mean score for psychological well-being was  $M = 86.39$  ( $SD = 17.30$ ), reflecting moderate to high levels of psychological well-being among parents in the sample.

### **Associations among Study Variables**

Correlation analyses revealed a statistically significant negative association between parental stress and psychological well-being ( $r = -0.52$ ,  $p < .001$ ), indicating that higher levels of perceived parental stress were associated with lower levels of psychological well-being. Parental stress was also negatively correlated with family resilience ( $r = -0.45$ ,  $p < .001$ ).

In contrast, family resilience showed a strong positive association with psychological well-being ( $r = 0.60$ ,  $p < .001$ ), suggesting that resilient family processes are linked to more adaptive psychological functioning under conditions of sustained caregiving demands.

### **Group Differences According to Contextual Characteristics**

Statistically significant differences were found according to place of residence. Parents living in rural and semi-urban areas reported higher levels of parental stress and lower levels of psychological well-being compared to parents residing in urban areas.

These findings underscore the role of geographic context in shaping parental experiences and reflect inequalities in access to early intervention and support services within the framework of Early Childhood Education and Care.

## **DISCUSSION**

The present findings are highly relevant for Early Childhood Education and Care (ECEC) systems working with families of young children with Special Educational Needs. By examining parental stress, family resilience, and psychological well-being within an early childhood context, the study highlights key psychosocial processes that shape family - ECEC interactions during a critical developmental period.

The coexistence of moderate parental stress with relatively high levels of family resilience suggests that families develop adaptive coping processes while continuing to experience sustained caregiving demands. For ECEC professionals, this finding underscores the importance of recognizing parental stress not as an indicator of dysfunction, but as a common and ongoing aspect of family life in early childhood disability contexts.

The differences observed according to place of residence further emphasize the role of contextual factors in shaping parental experiences. Parents living in rural and semi-urban areas may encounter additional challenges related to access, availability, and continuity of early intervention and ECEC services (Kirbas & Sahin, 2024; Tsibidaki, 2021). These findings highlight the need for ECEC systems to adopt flexible and context-sensitive approaches when working with families across diverse geographic settings.

Overall, the findings point to the importance of family-centered practices within Early Childhood Education and Care, emphasizing collaboration between parents and ECEC professionals. Supporting parental well-being and acknowledging resilience processes may contribute to more effective partnerships and improved outcomes for young children with Special Educational Needs (Fong & Iarocci, 2020; Yildirim et al., 2025).

### LIMITATIONS

The findings of the present study should be interpreted in light of certain limitations. First, the cross-sectional design does not allow for causal inferences regarding the relationships among parental stress, family resilience, and psychological well-being. Although meaningful associations were identified, longitudinal research would be required to examine changes over time and to better understand directionality among the studied variables.

Second, the study relied on self-report measures, which may be influenced by subjective perceptions or social desirability bias. While all instruments used are well-established and widely validated, future research could benefit from combining quantitative data with qualitative approaches to capture more nuanced aspects of family experiences.

Finally, the sample consisted predominantly of mothers, reflecting common caregiving patterns in families of children with SEN but limiting the generalizability of the findings to fathers and other caregivers. The underrepresentation of fathers highlights the need for future studies to explore gender-diverse caregiving perspectives and family dynamics more comprehensively.

### CONCLUSION

The present study examined parental stress, family resilience, and psychological well-being in families of young children with Special Educational Needs within the context of Early Childhood Education and Care. The findings indicate that parental stress is commonly experienced at moderate levels, while family resilience and psychological well-being vary across families, reflecting diverse caregiving experiences during early childhood.

By highlighting associations among key psychosocial factors and differences related to place of residence, the study contributes empirical evidence that may inform everyday practice within ECEC settings. Understanding parental experiences in this context can support ECEC professionals in fostering constructive collaboration with families and in responding more effectively to the needs of parents raising young children with Special Educational Needs.

Overall, the study emphasizes the value of considering family experiences as part of inclusive Early Childhood Education and Care practices and underscores the importance of continued research focusing on family well-being during early childhood.

## REFERENCES

- Aivalioti, I., & Pezirkianidis, C. (2020). The role of family resilience on parental well-being and resilience levels. *Psychology*, 11(11), 1705–1728. <https://doi.org/10.4236/psych.2020.1111108>
- Cheng, A. W. Y., & Lai, C. Y. Y. (2023). Parental stress in families of children with special educational needs: A systematic review. *Frontiers in Psychiatry*, 14, Article 1198302. <https://doi.org/10.3389/fpsyt.2023.1198302>
- Fong, V. C., & Iarocci, G. (2020). Child and family outcomes following parenting interventions for children with autism spectrum disorder: A systematic review and meta-analysis. *Developmental Review*, 57, Article 100924. <https://doi.org/10.1093/jpepsy/jsaa092>
- Hastings, R. P. (2002). Parental stress and behaviour problems of children with developmental disability. *Journal of Intellectual and Developmental Disability*, 27(3), 149–160. <https://doi.org/10.1080/1366825021000008657>
- Hayes, S. A., & Watson, S. L. (2013). The impact of parenting stress: A meta-analysis of studies comparing the experience of parenting stress in parents of children with and without autism spectrum disorder. *Journal of Autism and Developmental Disorders*, 43(3), 629–642. <https://doi.org/10.1007/s10803-012-1604-y>
- Kirbas, Z. O., & Sahin, E. (2024). Relationship between perceptions of family-to-family support, general well-being, and psychological resilience of mothers with children with special needs. *Medicine Science*, 13(3), 719. <https://doi.org/10.5455/medscience.2024.07.083>

- Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. Springer.
- Lysikato, A., & Georgiadou, S. (2023). Resilience, styles of humor and well-being in Greek parents of children with disabilities. *European Journal of Applied Positive Psychology*, 7(3), 1–13. <https://www.nationalwellbeingservice.org/volumes/volume-7-2023/volume-7-article-3/>
- Platsidou, M. (2025). Meaning making and parental adjustment in parents of children with disabilities: Evidence from Greece. *Psychologia*, 30(1), 23–40. [https://doi.org/10.12681/psy\\_hps.39085](https://doi.org/10.12681/psy_hps.39085)
- Ryff, C. D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology*, 57(6), 1069–1081. <https://doi.org/10.1037/0022-3514.57.6.1069>
- Tsibidaki, A. (2021). Anxiety, meaning in life, self-efficacy, and resilience in families with one or more members with special educational needs and disability during COVID-19 pandemic in Greece. *Research in Developmental Disabilities*, 109, Article 103830. <https://doi.org/10.1016/j.ridd.2020.103830>
- Walsh, F. (2003). Family resilience: A framework for clinical practice. *Family Process*, 42(1), 1–18. <https://doi.org/10.1111/j.1545-5300.2003.00001.x>
- Yildirim, A. E. S., Altındağ Kumaş, Ö., & Yazicioğlu, T. (2025). Social support, resilience, and life satisfaction in families with special needs children. *Journal of Pediatric Nursing*, 80, 16-23. <https://doi.org/10.1016/j.pedn.2024.11.001>

## STEAM APPROACH IN PRESCHOOL EDUCATION THROUGH TALES

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### **Abstract**

This paper presents a methodological model for integrating the STEAM approach (Science, Technology, Engineering, Art, and Mathematics) in preschool education, taking as a contextual framework the rich universe of Albanian tales. This paper argues that successfully introducing STEAM in early childhood depends heavily on the natural, emotional connections children form with scientific concepts through storytelling. Through a modeled analysis of the tales "The mouse, the ant, and the cat" and "The rabbit and the hedgehog", a didactic guide is proposed where the narrative serves as an incentive for the first construction processes, the intuitive understanding of space, and the observation and imitation of nature. The intended results of this model demonstrate the development of critical and creative thinking in children, intertwining sensitivity towards characters with the practical ability to solve problems.

**Keywords:** STEAM, preschool education, nature imitation, logical thinking, Albanian tales.

### **I. Problem statement**

In current pedagogical practice in preschool education, a clear disconnection is often observed between literary and scientific activities. Folktales, while serving as a primary means of communication with young children, are typically restricted to linguistic development or moral instruction, relegating the child to the role of a passive listener. As Egan (2005, p. 94) emphasizes, when narrative is used only for moralizing, the opportunity to stimulate the child's cognitive imagination, which is vital for understanding the

surrounding world, is lost. On the other hand, activities related to science or mathematics are often treated as isolated technical processes, stripped of the emotional element, which, according to Maeda (2013, p.3), hinders the full creative development that comes from the intertwining of arts with science (STEAM). This methodological disconnection creates two main obstacles:

**Lack of context:** Children struggle to connect abstract concepts (such as sizes, force, or shapes) with their reality. Bruner (1986, p. 11) argues that the human mind functions through narrative structures; without an event or storytelling context, scientific concepts remain foreign and difficult for the child to assimilate.

**Underestimation of narrative:** The potential of Albanian tales remains untapped as a simulating environment, in which the child can experiment and solve real problems through the imitation of nature models.

## **II. Purpose of the study**

This study aims to propose an integrated framework that transforms folktales from simple stories into active research "laboratories." The primary goal is to demonstrate how, through STEAM elements, the child can be transformed into an active participant in problem solving (Yakman, 2008, p. 19), effectively combining human empathy with logical reasoning. According to Katz (2010, p. 5), the approach through projects that link natural curiosity with practical research is the most effective way for early education.

## **III. Methodology of study**

This paper is based on a qualitative methodology, using a theoretical case study design. The paper does not aim to collect statistical data, but to analyze the process of how literary knowledge turns into scientific and creative actions. According to Denzin & Lincoln (2011, p. 3), this approach allows for a broader understanding of educational phenomena within their natural environment.

The instruments used for building this model are:

**Documentary analysis:** Review of contemporary literature on the STEAM approach and the psychology of child development, relying on Piaget's theory (1952, p. 45) for the construction of knowledge through action.

Analytical review of the text: Analysis of Bedri Dedja's tales to identify challenging situations that serve as incentives for scientific research in children.

Pedagogical modeling: Drafting an integrated didactic guide, which offers a step-by-step structure that can be applied by educators in kindergarten settings (Katz & Chard, 2000, p. 12).

#### **IV. Literature review**

Contemporary studies on preschool education emphasize that children aged 5-6 learn more effectively through active exploration rather than through passive methods of information transmission. The integration of arts (A) into the core of science and technology is not considered merely an aesthetic addition, but a tool for developing 21st-century competencies, such as problem solving and critical thinking (Hadinugrahaningsih et al., 2020, p. 5). Modern educational approaches suggest that narrative acts as a catalyst, encouraging the ability to see interdisciplinary connections across different fields of knowledge.

Research on *Story-based STEAM* suggests that the tale serves as an environment in which abstract concepts come to life (Colucci-Gray et al., 2021, p. 14). For young children, notions of force, weight, or space are difficult to grasp in isolation. However, when these concepts are placed within a contextual framework, they transform into challenges that the child desires to solve (Wan et al., 2023, p. 8). This type of emotional engagement increases concentration and makes the research process more meaningful, creating a link between imagination and formal logic.

Within the Albanian context, traditional tales illustrate a strong link between storytelling and developmental psychology. Bedri Dedja's narrative structures are designed not only for linguistic enrichment but to actively provoke creative problem-solving. His characters frequently face dilemmas requiring acute environmental observation and the imitation of natural models to succeed. Dedja's visionary approach aligns closely with modern philosophies of preschool engineering, where design and planning are recognized as vital tools for understanding the physical world (Li et al., 2022, p. 3).

The imitation of nature models, known as biomimicry, is proposed as a bridge between the knowledge of the living world and the first construction processes. At the age of 5-6, children possess a

natural curiosity about living things, which makes them excellent observers of adaptation models. When children are encouraged to see how the hedgehog's quills or the structure of the ant's storehouse are optimal solutions for protection or living, their creative inspiration is stimulated (Aras, 2021, p. 212). This process helps them understand that the objects we build are often a clever reproduction of natural solutions, developing both logic and environmental sensitivity at the same time.

### **V. From storytelling to practical creation**

To bring the integrated STEAM model to life, two work cycles based on Bedri Dedja's tales have been selected. Each cycle follows the research steps: Listening - Observation of nature - Sketching - Construction.

**Cycle I: The mouse, the ant, and the cat** – Exploration of space and stability

In this activity, children become “helpers” of the hardworking ant, moving from passive listening to concrete action. According to Wan et al. (2023, p. 12), this type of character transposition into a real challenge is essential for cognitive engagement in preschool age.

The Narrative Challenge: The ant requires a secure storehouse to protect its winter food reserves from mice and moisture.

Observation of nature's model: The teacher discusses with the children how ants build their nests underground to be strong and not collapse, and how they divide the rooms. This phase encourages keen observation, which, according to Aras (2021, p. 214), is the first step toward scientific thinking.

#### *Practical activity*

Measurement and mathematics: Children use containers of different sizes (baskets) to measure reserves. They experiment: "Which container holds more? How many cups of sand do we need to fill the storehouse we are building?" This process of informal measurement helps in building the first mathematical concepts of capacity.

Construction process: Using cardboard boxes and paper rolls, children build the storehouse model. Here they face the first problem: "How can we make the base so the structure doesn't fall?". This phase

represents the Engineering (E) element in STEAM, where children test stability through trial and error (Li et al., 2022, p. 7).

Creative Solution: Children might suggest paper lids or "locks" to secure the entrance. This highlights the integration of Art and Design (A), where functional engineering meets creative problem-solving.

**Cycle II: The rabbit and the hedgehog** – Exploration of protection and movement

This cycle focuses on the way nature offers solutions for the slowest living beings, integrating concepts of biological adaptation with those of simple mechanics.

The Narrative Challenge: The hedgehog must compete with the rabbit's speed. He succeeds using his intellect and his unique physical attributes.

Observation of nature's model: Children observe images of the hedgehog and discuss the function of the quills and the spherical shape it takes to protect itself. According to Aras (2021, p. 215), this process of observing protective structures in nature develops in the child "biomimetic awareness" (learning from nature).

### *Practical activity*

Modeling and science: Children create a hedgehog with plasticine and use pins or straws to imitate the quills. They test the "protection" by trying to touch it lightly with their hand, understanding the relationship between form and function.

The first elements of movement: The challenge evolves: "How can we help the hedgehog move faster?". Children build a simple vehicle with wheels (bottle caps). This phase encourages engineering thinking, where the child must design a solution for a movement problem (Li et al., 2022, p. 10).

Testing: Children test their vehicles on an inclined board (inclined plane). Through experimentation, they discover intuitively how wheels and slope affect speed. As emphasized by Hadinugrahaningsih et al. (2020, p. 7), testing prototypes in real conditions helps children understand basic principles of physics (gravity and friction) without the need for theoretical formulas.

## VI. Expected results and discussion

Implementing this integrated model, which merges Bedri Dedja's literary heritage with the STEAM framework, aims to produce these results in children of preschool age:

**Development of Critical and Creative Thinking:** Moving beyond passive listening, children are challenged to devise practical solutions for narrative dilemmas. This fosters the ability to analyze variables and test hypotheses until a viable result—such as structural stability—is achieved. As Li et al. (2022, p. 13) state, this "design thinking" process forms the bedrock of practical intelligence in early childhood.

**Strengthening Empathy and Research Ethics:** Because the engineering task originates from a story, children are not just building technical objects; they are creating human-centric solutions to assist a character they care about. This frames science and technology as tools for well-being rather than sterile, mechanical processes (Colucci-Gray et al., 2021, p. 22).

**Intuitive Grasp of Biomimicry:** By imitating nature, children learn that highly efficient engineering solutions already exist in the biological world. This heightens their environmental curiosity, turning them into careful observers of their ecosystem—a skill Aras (2021, p. 218) terms "ecological literacy."

**Foundational Skills in Measurement and Physics:** Without relying on academic jargon, children discover how an incline dictates speed or how a container's dimensions determine its volume. This demonstrates that integrating art and narrative (A) does not dilute scientific rigor; rather, it makes scientific concepts more accessible and memorable (Wan et al., 2023, p. 18).

## VII. Conclusion

This paper demonstrates that Albanian folktales, particularly the literary works of Bedri Dedja, hold untapped potential for meeting the demands of modern preschool education. The main conclusions of this study are:

**Interdisciplinary integration:** Literature and the STEAM approach should not be seen as isolated fields, but as interacting systems. In this model, the narrative provides the contextual framework and emotional motivation ("the reason"), while science and technology provide the tools for practical intervention on reality.

The author's visionary value: Bedri Dedja emerges as a visionary author whose narratives organically promote logical reasoning, problem-solving, and analytical observation of the natural world. His literary universe functions as an ideal incubator for early scientific literacy.

Action-based teaching: The proposed model shifts the classroom dynamic from passive absorption to active experimentation. Children learn through an iterative process of trial, error, and refinement, acquiring both technical knowledge and cognitive resilience. Consistent with recent pedagogical frameworks (Colucci-Gray et al., 2021), combining creative storytelling with scientific inquiry equips young learners with the foundational skills necessary to navigate the complexities of the 21st century.

## REFERENCES

- Aras, S. (2021). Biomimicry in Early Childhood Education: A pathway to sustainability. *Early Childhood Education Journal*, 49(2), 211-220. <https://doi.org/10.1007/s10643-020-01064-x>
- Benyus, J. M. (1997). *Biomimicry: Innovation Inspired by Nature*. Morrow.
- Bruner, J. (1986). *Actual Minds, Possible Worlds*. Harvard University Press.
- Colucci-Gray, L., Burnard, P., Cooke, C., Davies, R., Trowsdale, J., & Backhouse, A. (2021). *Reviewing the potential and challenges of developing STEAM education through creative pedagogies for 21st-century learning*. British Educational Research Association (BERA).
- Dedja, B. (2000). *Përrallat e gjyshit: Përralla dhe tregime për fëmijë*. Shtëpia Botuese "Naim Frashëri".
- Denzin, N. K., & Lincoln, Y. S. (2011). *The Sage Handbook of Qualitative Research*. Sage Publications.
- Egan, K. (2005). *An Imaginative Approach to Teaching*. Jossey-Bass.
- Hadinugrahaningsih, T., Rahmawati, Y., & Ridwan, A. (2020). STEAM 21st century learning: Developing students' creativity. *Journal of Physics: Conference Series*, 1567, 042044. <https://doi.org/10.1088/1742-6596/1567/4/042044>

- Katz, L. G., & Chard, S. C. (2000). *Engaging Children's Minds: The Project Approach* (2nd ed.). Ablex Publishing.
- Li, J., Tang, X., & Wang, Y. (2022). Preschoolers' engineering design thinking in storytelling contexts. *International Journal of STEM Education*, 9(1), 1-15.  
<https://doi.org/10.1186/s40594-022-00331-x>
- Maeda, J. (2013). STEM + Art = STEAM. *The STEAM Journal*, 1(1), Article 34. <https://doi.org/10.5642/steam.20130101.34>
- Piaget, J. (1952). *The Origins of Intelligence in Children*. International Universities Press.
- Sousa, D. A., & Pilecki, T. (2013). *From STEM to STEAM: Using brain-compatible strategies to integrate the arts*. Corwin Press.
- Vygotsky, L. S. (1978). *Mind in Society: The Development of Higher Psychological Processes*. Harvard University Press.
- Wan, Z. H., Jiang, S., & Zhan, Y. (2023). STEM education in early childhood: A review of recent literature. *Journal of Science Education and Technology*, 32(1), 7-22.  
<https://doi.org/10.1007/s10956-022-10010-z>
- Yakman, G. (2008). *STEAM Education: An overview of creating a model of integrative education*. Virginia Polytechnic Institute and State University.

## THEORETICAL MODEL OF INTEGRATED DIGITAL FOLKLORE (IDFM)

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### **Abstract**

Education in the digital era faces a distinct challenge: as technological tools multiply, traditional cultural heritage risks slipping away from younger generations. For Generation Alpha—a cohort defined by its native relationship with virtual environments (McCrindle & Fell, 2021, pp. 18-22)—conventional methods of teaching folklore are often ineffective. This paper introduces the Integrated Digital Folklore Model (IDFM), a theoretical and practical framework designed to help primary school teachers bring cultural heritage back to life. Grounded in the TPACK framework and Multimodal Literacy theory, the model outlines a three-stage instructional cycle: Curation, Experience, and Creation. The article examines the teacher's evolving role as a critical curator and provides a comprehensive catalog of Web 2.0 tools to support this process.

**Keywords:** Education, folklore, pedagogy, Generation Alpha, theoretical model.

### **Introduction: Grounding the IDFM in the TPACK Framework**

The Integrated Digital Folklore Model (IDFM) is a teaching framework designed to revitalize cultural heritage within the digital landscape of primary education. To successfully merge technology with the study of folklore, this model is rooted in the Technological Pedagogical Content Knowledge (TPACK) framework. According to Mishra and Koehler (2006, pp. 1017–1054), a teacher's effectiveness in the digital era relies on more than just tech-savviness; it requires finding the optimal intersection of content, pedagogy, and digital tools.

IDFM does not treat technology as a mere add-on; rather, it serves as a catalyst that empowers active pedagogy and enables an in-depth exploration of folkloric content. It is structured upon three core pillars:

- Content Knowledge (CK): Focuses on the subject of folklore (utilizing the richness of legends and cultural artifacts).
- Pedagogical Knowledge (PK): Guides the teacher toward discovery-based methods, storytelling, and gamification.
- Technological Knowledge (TK): Facilitates the use of 360° spherical platforms, Canva, Padlet, etc., to reify abstract knowledge.

### **I. Content Curation and Resource Accessibility**

The IDFM serves as a theoretical framework for cultural sustainability within the contemporary educational environment. This process relies on active didactic curation, where the teacher acts as a facilitator between historical heritage and the digital-native approach of Generation Alpha. According to Geneva Gay, culturally responsive pedagogy requires the learning process to integrate elements that reflect the student's identity, transforming folklore into a dynamic resource for individual inquiry (Gay, 2021, p. 45).

Through multimodal formatting, this model enables the ontological revitalization of cultural material, turning it into a functional asset for developing civic and technological competencies (UNESCO, 2024, p. 12). Consequently, the student is no longer a passive recipient of information but becomes an active participant in heritage valuation through platforms aligned with their inherent learning styles (Sari et al., 2024, p. 89).

#### **1.1. Multimodality as a Tool for Developing Functional Linguistic Competence**

The selection of resources during this stage of the IDFM model is grounded in Multimodal Literacy Theory. According to Ashadi Sari, this theoretical framework posits that knowledge acquisition is more sustainable and comprehensive when information is conveyed through the integration of linguistic, visual, auditory, and spatial channels (Sari et al., 2024, p. 92). In the context of folklore, this implies that the plain text of a legend or the description of traditional attire acquires new layers of meaning when accompanied by interactive digital stimuli that develop the student's functional competencies.

From a practical perspective, the use of digital libraries such as Europeana (Europeana Cultural Heritage) or Open Educational Resources (OER) enables students to transition from passive readers to active explorers. For instance, access to high-resolution images of folk costumes allows for detailed observation of textures and symbols, fostering what contemporary pedagogy defines as agentic engagement. This process encourages students to actively contribute to the instructional flow by posing questions and proposing new perspectives (Reeve & Tseng, 2011, pp. 257–267).

According to Sari, this form of engagement emerges when students take a leading role in their own research process, personalizing their journey of discovering elements of heritage (Sari et al., 2024, p. 98). In this sense, technology does not replace folkloric material; rather, it acts as a lens that makes it more accessible and meaningful for students' cognitive structures.

## 1.2. Critical Curation: The Teacher as an Architect of the Learning Environment

A persistent challenge in technology integration is the risk of cognitive overload—a condition in which students may feel overwhelmed when confronted with an uncontrolled volume of information. To address this, the IDFM model proposes the concept of critical curation, an approach advocated by Keith Sawyer and colleagues (Sawyer et al., 2024, p. 112). Within this framework, the teacher does not function as a mere transmitter of resource links but as an architect of the learning environment, carefully selecting and filtering materials that align with pedagogical objectives and students' developmental levels.

This critical curation is implemented through two primary filters:

- **Local contextualization:** To enhance emotional relevance and meaningful connection, the teacher selects resources that reflect the student's immediate environment. This process, referred to in pedagogy as cultural scaffolding, helps build bridges between prior knowledge and new digital information. Originally conceptualized by Bruner as a form of graduated assistance toward cognitive independence, this concept is revitalized in the present model through its adaptation to

contemporary digital environments (Bruner, 1976; Hammond & Gibbons, 2024, p. 56).

- **Developmental appropriateness:** Through platforms such as FlipHTML5 or AnyFlip, teachers can transform narrative materials into interactive digital flipbooks. This format not only makes reading more engaging but also facilitates information processing by structuring content into manageable units. Such curation enhances students' sense of security during digital navigation and reinforces the teacher's role as a guide in the learning process (Sawyer, 2024, p. 115).

### 1.3. Classification of digital resources and verification of authenticity

To minimize the risk of misinformation or distortion of folkloric elements in digital environments, the IDFM model proposes a structured protocol for resource verification. According to Steven Higgins and Richard Smith, the effectiveness of a digital didactic model depends on the use of certified resources that ensure both scientific accuracy and cultural integrity (Higgins & Smith, 2024, p. 78). This process relies on two key mechanisms:

- **Authentic selection:** Teachers guide students toward institutional archives—such as platforms managed by cultural institutions, national libraries, or digital museums—ensuring that materials (e.g., tales, myths, or images of traditional attire) are credible representations of tradition. This prevents reliance on sources with unclear origins or distorted content commonly found in open search environments.
- **Development of critical competence:** Through this filtering process, students begin to distinguish authentic evidence from superficial reinterpretations. This stage functions as an early exercise in critical thinking, preparing primary students to become responsible users of information in the age of Artificial Intelligence (Luckin, 2025, p. 34). It also reinforces what has been previously defined as functional linguistic competence, particularly in the domain of information evaluation.

## II. Integrated experience and multisensory exploration

This component is grounded in the principle of digital presence (telepresence), whereby technology enables students to experience a sense of being physically present in a different environment, regardless of geographical or temporal distance (Lombard & Ditton, 1997). According to Chris Dede and John Richards, immersive environments enhance intrinsic motivation, transforming learning from a mechanical process into an emotionally meaningful experience (Dede & Richards, 2025, p. 14).

Within the IDFM model, this is implemented through two complementary approaches:

- **Close observation:** The use of high-resolution imagery allows students to observe details beyond the limits of the naked eye. Through platforms such as Google Arts & Culture, students can explore intricate elements of garments such as the xhubleta or the embroidery of a fustanella. Zooming into the fabric enhances understanding of craftsmanship and symbolic meaning, fostering a deeper appreciation of cultural heritage (Pietro, 2024, p. 65).
- **360° narrative space:** Spherical technologies enable the presentation of environments in a full circular field of view, allowing students to virtually enter the setting of a legend. For example, through platforms like ThingLink, teachers can design virtual tours of sites such as Rozafa Castle, where students explore the environment while interacting with embedded narrative elements. As Keith Miller notes, spatial immersion can increase retention of folkloric elements by up to 40% (Miller, 2024, p. 92). This approach fosters both emotional engagement and spatial understanding, transforming storytelling into an immersive learning experience.

### 2.1. Interaction and personalization: The student as an active discoverer

At this stage, technology becomes an interactive environment that stimulates students' natural curiosity. The IDFM model aligns with discovery-based learning, a pedagogical approach in which students actively construct knowledge through exploration. According

to Bruner, this model positions learners as active participants who build new knowledge upon prior experiences, thereby enhancing intrinsic motivation and critical thinking (Bruner, 1961, pp. 21–32).

Similarly, Barron and Darling-Hammond emphasize that when students take ownership of their learning process, information is transformed into durable knowledge (Barron & Darling-Hammond, 2025, p. 118). This is operationalized through:

- **Detailed exploration of objects:** Students investigate specific elements of cultural heritage using interactive features such as hotspots. For example, isolating a musical instrument may trigger audio playback or visual demonstrations of its use, promoting deeper engagement and autonomy.
- **Personalization of the experience:** Students are free to focus on aspects that capture their interest. This transforms the classroom into an individualized research space, where each learner forms a unique connection with cultural heritage, strengthening both identity and a sense of belonging (Smith, 2024, p. 205).

## 2.2. Gamification as a driver of curiosity and engagement

To ensure that virtual exploration is transformed into active knowledge, the IDFM model integrates the strategy of gamification. According to Karl Kapp, this approach does not aim for mere entertainment but uses game mechanics and aesthetics to foster cognitive engagement and problem-solving (Kapp, 2012, p. 10). Within the IDFM model, this is achieved through a logical progression: observe → interact360° → play, where the student moves from passive perception to concrete action upon the folkloric material. James Paul Gee asserts that playing enables students to experiment with their knowledge in a supportive environment, where error is seen as part of the growth process rather than failure (Gee, 2007, p. 37).

Practical implementation is carried out through platforms such as Wordwall<sup>1</sup> or LearningApps<sup>2</sup>:

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<sup>1</sup> **Wordwall** – An interactive educational platform that enables the creation of gamified learning activities such as quizzes, labeled games, wheels of fortune, and word cards. It provides interactivity for the student, turning assessment into a motivating and fun experience. Accessed at: <https://wordwall.net>

Assessment through challenge: After exploring a legend or observing traditional attire, the teacher does not use traditional questionnaires but interactive quizzes. For example, through the match-up template, the student can link a legendary figure like Muji to his strength (the source of strength from the fairies' milk) or pair the names of folk instruments with their images.

Promoting well-being in learning: By turning questions into a game with colors, sounds, and immediate feedback, the student feels more at ease and liberated from the pressure of formal assessment. For instance, instead of a written test on folk costumes, the student completes an interactive map on LearningApps<sup>3</sup>, where every correct answer is accompanied by a celebratory sound or the discovery of a new artistic detail. This transforms the classroom into a play laboratory, where the teacher creates personalized materials that stimulate the desire to discover more about folklore, making the learning process as challenging as it is enjoyable.

### III. Expression and creation (Digital product)

This stage represents the fulfillment of the IDFM model, where the student transitions from an attentive user of information to a co-creator of heritage. This is based on the principle of constructionism (Papert, 1980), according to which the best and most sustainable learning occurs when an individual is engaged in building a tangible and meaningful product.

#### 3.1. Digital storytelling and creative reshaping

Students use digital tools to reinterpret folkloric elements they have previously researched. This process is not a mechanical repetition but a new expression of their identity. According to

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<sup>2</sup> **LearningApps** – A digital tool (Web 2.0) created to support learning and teaching processes through interactive modules. It offers a wide range of templates such as: chronological sequencing, matching pairs, or fill-in-the-blanks, which facilitate knowledge acquisition. Accessed at: <https://learningapps.org>

<sup>3</sup> **LearningApps** – An educational platform based on interactive modules (Learning Objects), which facilitates the creation of specific exercises like chronological sequencing, matching pairs, fill-in-the-blanks, and interactive maps. Through its intuitive structure, it encourages self-correction and independent learning, providing students with a practical environment to test their knowledge of folklore dynamically. Accessed at: <https://learningapps.org>

Bernard Robin, digital storytelling develops linguistic, digital, and artistic competencies in an integrated manner (Robin, 2008, p. 224).

Digital talking book: Through platforms like Book Creator<sup>4</sup> or Canva<sup>5</sup>, the student creates an illustrated book about a legendary figure (e.g., Muji). They select backgrounds that evoke antiquity and, through the recording option, give voice to the character, narrating parts of the epic. This final product is not merely an assignment but an audio-tale where the student interprets the characters, giving them a modern and personal spirit.

### 3.2. Collaborative projects and the class digital archive

To foster teamwork and a sense of belonging, the model proposes the creation of a shared research space through Google Classroom<sup>6</sup>. This platform serves as a living archive where the teacher organizes materials by theme (e.g., legends, music, attire), allowing students to access certified resources at any time.

Heritage map on Padlet: Students within a class pin photos, texts, audio recordings, or details of local folk costumes onto this digital board. This process, integrated within the umbrella platform of Google Classroom, transforms the classroom into a small cultural editorial office, where collaboration fosters civic competence and respect for cultural diversity (UNESCO, 2017, p. 12).

In this manner, Google Classroom does not function merely as an administrative tool, but as a digital portfolio that documents the student's cultural growth throughout the school year.

### 3.3. The IDFM model as a symbiosis of tradition and innovation

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<sup>4</sup> **Book Creator** – An open digital platform that allows students and teachers to create their own interactive books. It enables the integration of text, images, drawings, videos, and voice recordings, making it an ideal tool for documenting cultural heritage research. Accessed at: <https://bookcreator.com>

<sup>5</sup> **Canva** – A powerful graphic design tool providing professional templates for creating posters, presentations, infographics, and videos. In education, it is used to develop artistic and visual competence, allowing students to present folkloric elements in a modern and aesthetic format. Accessed at: <https://www.canva.com>

<sup>6</sup> **Google Classroom** – A free learning management system (LMS) that enables the creation, distribution, and assessment of assignments in a secure digital environment. It serves as a command center where all other tools are integrated, facilitating student-teacher communication and the organization of educational resources. Accessed at: <https://classroom.google.com>

The proposed model does not aim to replace traditional methods, but rather to enrich and revitalize them through a blended learning approach. According to Charles Graham, this framework integrates the traditional classroom environment with online learning opportunities, creating a more flexible experience that increases learning effectiveness and student engagement (Graham, 2006, pp. 3–21).

By integrating collaborative tools such as Padlet<sup>7</sup> and creative ones like Canva, the model transforms folklore into an active process of experience and creation. This process ensures that cultural heritage remains alive and relevant for students of the digital age, harmoniously developing both national identity and technological competence (Selwyn, 2016, p. 62). In this form, the IDFM model serves as a bridge between generations, where technology does not alienate folklore but becomes the medium that preserves its spirit and adapts it to the language of the 21st century.

### Digital Resource Catalog

This section is conceived as practical support for primary school teachers wishing to implement the IDFM model. This catalog is not merely a list of tools but an invitation to explore the 21st-century digital laboratory, where Albanian tradition can be preserved and promoted through advanced technologies, transforming the student from a passive listener into a cultural co-creator.

Nearpod: Allows teachers to create interactive presentations where students can draw, take quizzes, and view VR (virtual reality) environments within the presentations. Access: <https://nearpod.com>

Mentimeter: Used to gather immediate feedback through key concepts. e.g., "What is the first word that comes to mind when you hear the name Muji?" Access: <https://www.mentimeter.com>

Genially: A platform for creating presentations, infographics, and digital "escape rooms" that are fully interactive and animated. Access: <https://genial.ly>

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<sup>7</sup> **Padlet** – A virtual wall board where students can post their thoughts, photos, and research in real-time. Ideal for the Heritage Map. Accessed at: <https://padlet.com>

Storyboard That: A tool that allows students to create graphic narrative sequences to illustrate legends or the Cycle of the Kreshniks. Access: <https://www.storyboardthat.com>

ChatterPix Kids: A fun application where students can give voice to a photo (e.g., making a traditional costume or an instrument speak and tell its own story). Access: (Available on App Store / Play Store)

Edpuzzle: Allows the teacher to take a video from YouTube (e.g., a folk costume, a lahuta song, or a film adaptation of a tale) and insert stop-questions within the video that the student must answer to proceed. Access: <https://edpuzzle.com>

Anchor (Spotify for Podcasters): A simple tool for creating the class folklore podcast (audio-tale), where students record their stories or interviews. Access: <https://podcasters.spotify.com>

Vocaroo: A simple online tool for recording and sharing voice messages. In the context of folklore, it serves as a digital voice recorder for students to document oral heritage (tales, songs, testimonies) from tradition bearers in their families. Access: <https://vocaroo.com>

Suno AI: An artificial intelligence-based platform for generating musical compositions. It enables students to transform epic verses or folk poetry into songs across various genres, fostering an understanding of rhythm and poetic structure through a new form of creation. Access: <https://suno.com>

Wakelet: A curation platform that allows teachers to collect articles, YouTube videos, images, and PDF documents in a single space (collection). It is the ideal tool for creating the class digital library for specific topics like the Cycle of the Kreshniks or folk costumes. Access: <https://wakelet.com>

Quizizz: A knowledge assessment platform that offers a calmer environment than fast-paced games. It allows students to answer questions at their own pace, providing detailed reports for the teacher on each student's progress. Access: <https://quizizz.com>

MindMeister: A digital tool for building conceptual maps and mind diagrams. It helps students visualize complex connections between mythological characters, genealogical trees, or the geographical distribution of customs and traditions. Access: <https://www.mindmeister.com>

Coggle: An excellent tool for creating colorful mind maps. The teacher can use it to analyze the structure of an epic song (e.g., characters, setting, code of honor). Access: <https://coggle.it>

Sutori: A platform that creates interactive timelines. Ideal for presenting the evolution of folk costumes or the periods of Albanian folklore collection. Access: <https://www.sutori.com>

Loom: Allows the teacher to record their screen and themselves simultaneously. It can be used to create short video tutorials on how students should use the other platforms. Access: <https://www.loom.com>

Pixton: A platform for creating avatars and comics. Students can create themselves as legendary characters and build dialogues using the language of the period. Access: <https://www.pixton.com>

Plickers: Ideal for classrooms with limited technological devices. The teacher uses coded cards and their phone to scan students' answers live. Access: <https://get.plickers.com>

Symbaloo (Digital Bookmarking Panel): An organizing environment that serves as a resource guide, where the teacher curates and archives all important links regarding folklore. Through simple and clear icons, students can access study materials with a single click, creating a personalized digital library. Access: <https://www.symbaloo.com>

Wizer.me: Enables the creation of interactive worksheets. Instead of the classic paper-and-pencil sheet, the student completes videos, audio, and images within the assignment. Access: <https://wizer.me>

CoSpaces Edu: Allows students to create their own 3D environments and view them in VR. A group of students can build Rozafa Castle in a digital format. Access: <https://cospaces.io/edu>

AnswerGarden: The fastest tool for brainstorming. The teacher asks a question, and all student answers immediately appear on the screen as a word cloud. Access: <https://answergarden.ch>

Adobe Express: Similar to Canva but with a strong focus on short videos and simple web pages. Ideal for students to present a mini-documentary about a regional festival. Access: <https://www.adobe.com/express>

### **Conclusions and recommendations**

The selection of these platforms is not intended merely for the technological modernization of the lesson but aims to create a communicative bridge between the past and the future. Through the IDFM model, the teacher does not simply teach students how to use software; rather, they provide them with the necessary tools to protect, document, and promote our national identity in the global digital space. By giving voice to legends through Vocaroo, visualizing castles in VR, or encoding epic cycles in Sutori, the student becomes a promoter of heritage in the digital era of folklore. In this manner, technology ceases to be an end and becomes an empowering tool that ensures our spiritual wealth will survive and shine even in the age of artificial intelligence.

### **Recommendations**

Based on the conclusions presented, the following concrete measures are recommended for the effective implementation of the IDFM model and the integration of digital platforms into teaching:

Systematic teacher training in digital pedagogy. Professional development sessions should be organized, focusing not only on the technical use of platforms (Vocaroo, VR, Sutori) but on the didactics of their integration to develop students' cultural, digital, and civic competencies.

Creation of interdisciplinary projects. Collaboration between subjects should be promoted to realize projects that intertwine literary analysis, historical context, and digital production. This approach strengthens meaningful learning and transforms cultural heritage into an active experience.

Building a school digital archive. Products created by students (voice recordings, visualizations, digital timelines) should be preserved in an institutional online archive. This ensures long-term documentation, public promotion, and the construction of a school identity in the digital space.

Empowering the student's role as creator and promoter. The instructional process should be oriented toward active methodologies (project-based learning, digital storytelling, virtual exploration), where the student transitions from an information consumer to a producer of culturally valuable content.

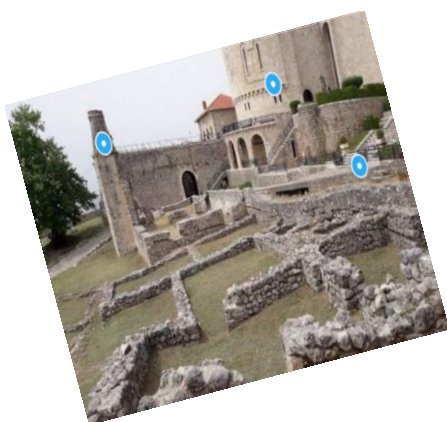
Guaranteeing infrastructure and equal access. Educational institutions must invest in hardware, stable internet connections, and VR tools to ensure that digital transformation does not remain solely at a conceptual level.

Promotion of products in digital public spaces. Social media, official school websites, and educational platforms should be used to publish high-quality projects, making cultural heritage an active part of global communication.

The implementation of these recommendations will ensure that technology is used as a strategic tool for the preservation, transformation, and transmission of cultural heritage within the context of the digital society.

### **EXAMPLES: Implementation of the model in the classroom**

The IDFM model can be illustrated through two practical applications that link traditional instruments with historical spaces. In the first example, students use tools such as Vocaroo and Suno AI to explore the sound of the lahuta, integrating epic verses with modern interpretations that preserve the original rhythm. In the second example, through 360° technology, students virtually enter the hidden castle of Skanderbeg (Cape of Rodon), where interactive elements allow them to discover the architecture and legends of the fortification within an immersive environment. These cases demonstrate how technology serves as a bridge to make the symbols of our resilience and identity tangible.



<https://www.thinglink.com/scene/2074772463614427622>  
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## REFERENCES

- Barron, B., & Darling-Hammond, L. (2025). *Powerful Learning: What We Know About Teaching for Understanding*. Jossey-Bass.
- Bruner, J. S. (1961). *The Act of Discovery*. Harvard Educational Review, 31.
- Bruner, J. S. (1976). *The Role of Tutoring in Problem Solving*. Journal of Child Psychology and Psychiatry, 17(2).
- Dede, C., & Richards, J. (2025). *The Power of Immersive Learning: VR and AR in the Modern Classroom*. Harvard Education Press.
- Gay, G. (2021). *Culturally Responsive Teaching: Theory, Research, and Practice* (4th ed.). Teachers College Press.
- Gee, J. P. (2007). *What Video Games Have to Tell Us About Learning and Literacy*. Palgrave Macmillan.
- Graham, C. R. (2006). *Blended learning systems: Definition, current trends, and future directions*. In C. J. Bonk & C. R. Graham (Eds.), *The Handbook of Blended Learning: Global Perspectives, Local Designs*, Pfeiffer.
- Hammond, J., & Gibbons, P. (2024). *Scaffolding Language and Learning in the Curriculum: Cultural and Linguistic Perspectives*. Routledge.
- Higgins, S., & Smith, H. (2024). *Digital Pedagogy in Primary Education: Managing Authentic Resources*. Routledge.  
<https://doi.org/10.1111/j.1083-6101.1997.tb00072.x>
- Kapp, K. M. (2012). *The Gamification of Learning and Instruction: Game-based Methods and Strategies for Training and Education*. Pfeiffer.
- Lombard, M., & Ditton, T. (1997). At the Heart of It All: The Concept of Presence. *Journal of Computer-Mediated Communication*, 3(2).
- Luckin, R. (2025). *Intelligence Augmented: Facilitating Critical Thinking in the Digital Classroom*. UCL Press.
- McCrindle, M., & Fell, A. (2021). *Generation Alpha: Understanding the Babies of the 2010s and the Children of the 2020s*. Hachette Australia.

- Miller, K. (2024). *Digital Storytelling and Spatial Cognition in Early Education*. Oxford University Press.
- Mishra, P., & Koehler, M. J. (2006). *Technological pedagogical content knowledge: A framework for teacher knowledge*. Teachers College Record, 108(6).
- Papert, S. (1980). *Mindstorms: Children, Computers, and Powerful Ideas*. Basic Books.
- Pietro, L. S. (2024). *Virtual Museums and Cultural Heritage: New Perspectives for Primary Education*. Academic Press.
- Reeve, J., & Tseng, C. M. (2011). *Agency as a fourth aspect of students' engagement during learning activities*. Contemporary Educational Psychology, 36(4). <https://doi.org/10.1016/j.cedpsych.2011.05.002>
- Robin, B. R. (2008). *Digital Storytelling: A Powerful Technology Tool for the 21st Century Classroom*. Theory Into Practice, 47(3).
- Sari, A. R., et al. (2024). *Digital Literacy and Cultural Heritage Education in Primary Schools*. Journal of Educational Multimedia and Hypermedia, 33(2).
- Sawyer, R. K. (Ed.). (2024). *The Cambridge Handbook of the Learning Sciences* (3rd ed.). Cambridge University Press.
- Selwyn, N. (2016). *Education and Technology: Key Issues and Debates*. Bloomsbury Publishing.
- Smith, J. A. (2024). *Cultural Identity and Digital Pedagogy in Primary Schools*. Routledge.
- UNESCO. (2017). *Learning to Become: The Role of Cultural Heritage in Citizenship Education*. UNESCO.
- UNESCO. (2024). *Framework for Cultural and Arts Education*. UNESCO Publishing. [Online: [unesco.org/cultural-framework-2024](https://unesco.org/cultural-framework-2024)].

**PROFESSIONAL PROFILE OF THE PHYSICAL EDUCATION  
TEACHER FOR EARLY CHILDHOOD (AGES 0–6)**

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**Abstract**

Physical education in the age range of 0–6 years represents a fundamental component of children’s holistic development, directly influencing motor, cognitive, social, and emotional growth. The profile of the physical education teacher for this age group requires an integration of professional knowledge, pedagogical skills, and psycho-social competencies tailored to early childhood development. This paper aims to analyse and describe the main characteristics of the professional profile of the physical education teacher working with children aged 0–6 years, emphasizing academic training, knowledge of child developmental stages, the ability to plan playful motor activities, and the creation of a safe, motivating, and inclusive environment. Furthermore, the role of the teacher is highlighted as a facilitator of learning through play, a promoter of an active lifestyle, and a collaborator with families and educational staff. Ultimately, the profile of the physical education teacher in early childhood education is considered crucial for establishing the foundations of health, mobility, and well-being in later stages of life.

**Keywords:** physical education, early childhood education, ages 0–6, teacher profile, pedagogical competencies, active lifestyle

**Introduction**

Early childhood, particularly the age range of 0–6 years, represents a critical period for the holistic development of children. During this stage, physical activity plays a fundamental role in supporting motor development, cognitive growth, emotional balance, and social interaction. Physical education in early childhood education is not merely focused on movement, but serves as a foundation for healthy lifestyles, body awareness, and positive attitudes toward physical activity throughout life.

The effectiveness of physical education at this stage is closely linked to the professional profile of the physical education teacher. Teaching young children requires specialised knowledge of developmental stages, age-appropriate motor skills, and pedagogical strategies based on play, exploration, and creativity. The physical education teacher for children aged 0–6 must combine professional competencies with sensitivity, patience, and the ability to create a safe, inclusive, and motivating learning environment.

This paper aims to analyse and define the professional profile of the physical education teacher working with children aged 0–6 years. It focuses on the required academic background, pedagogical and didactic competencies, psychomotor knowledge, and social-emotional skills necessary to support early childhood development. By examining theoretical perspectives and contemporary educational practices, this study emphasizes the essential role of the physical education teacher in early childhood education and highlights the importance of quality teaching in promoting children's well-being and long-term development.

## **1. Theoretical Framework**

### **Basic Concepts of Physical Education in Early Childhood**

Physical education in early childhood is a structured educational process that promotes children's holistic development through purposeful movement activities. During the preschool years, physical education emphasizes the development of fundamental movement skills such as balance, coordination, locomotion, and body awareness rather than performance or competition. Research highlights that movement experiences during early childhood are closely connected to brain development, physical health, and learning readiness (OpenStax, 2023). A developmentally appropriate physical education programme encourages exploration, enjoyment, and creativity while supporting the formation of healthy habits and lifelong engagement in physical activity (Zeng et al., 2017).

### **Theories of Motor and Psychomotor Development (Ages 0–6)**

Theories of motor and psychomotor development provide a scientific foundation for understanding children's growth during early childhood. Motor development in children aged 0–6 follows a sequential and predictable pattern influenced by neurological maturation, environmental stimulation, and learning opportunities (OpenStax, 2023). Psychomotor development integrates motor skills with cognitive, emotional, and social processes, emphasizing that movement is essential for language acquisition, attention, self-regulation, and problem-solving skills (Rojo-Ramos et al., 2022). Studies consistently demonstrate that well-structured physical activity programmes significantly improve both motor proficiency and cognitive functioning in young children (Zeng et al., 2017).

### **The Role of Play in Physical Education**

Play represents the core methodological approach in physical education during early childhood. Through play, children naturally engage in movement, experimentation, and social interaction, making learning meaningful and enjoyable. Research confirms that play-based physical activities enhance motor competence while also supporting emotional regulation, creativity, and social skill development (Trawick-Smith, 2014). Furthermore, play reduces stress and anxiety, allowing children to develop physical skills in a safe, pressure-free environment (Yogman et al., 2018). Both structured and free play are essential components of effective physical education, contributing to children's overall well-being and motivation to remain physically active.

### **Contemporary Standards and Guidelines for Early Childhood Education**

Contemporary international standards emphasize physical activity as a fundamental component of early childhood education. The World Health Organization (WHO, 2019; 2021) recommends daily opportunities for age-appropriate physical activity and limited sedentary behaviour for children under five years of age. Similarly, UNESCO highlights the right of all children to participate in inclusive, safe, and developmentally appropriate physical education and physical activity programmes (UNESCO, 2015). These standards

stress the importance of qualified educators, child-centred teaching approaches, and collaboration with families to support children's holistic development and long-term health (WHO, 2021).

## **2. The Profile of the Physical Education Teacher for Children Aged 0–6 Years**

### **Professional and Academic Training**

The physical education teacher working with children aged 0–6 years must possess comprehensive professional and academic training that combines physical education, early childhood pedagogy, developmental psychology, and health sciences. Research emphasizes that early childhood educators require specialized preparation to understand motor development milestones and the relationship between movement, cognition, and emotional growth (Gallahue, Ozmun, & Goodway, 2012; OpenStax, 2023). Academic training should also include knowledge of safety regulations, inclusive education, and age-appropriate physical activity guidelines. Continuous professional development is essential, as it enables teachers to apply evidence-based practices and adapt to contemporary educational approaches (UNESCO, 2015). A well-prepared teacher is therefore fundamental to ensuring quality physical education in early childhood settings.

### **Pedagogical and Didactic Competencies**

Pedagogical and didactic competencies play a central role in the effectiveness of physical education for young children. Teachers must be capable of designing, implementing, and evaluating developmentally appropriate movement activities that address individual differences among children (Pangrazi & Beighle, 2019). Early childhood physical education should emphasize play-based, experiential learning rather than formal instruction or performance-based outcomes. Effective didactic practices allow children to acquire fundamental motor skills, develop creativity, and experience enjoyment while participating in physical activity (Zeng et al., 2017). Adaptability, observation skills, and reflective teaching are therefore essential pedagogical qualities for physical education teachers at this stage.

### **Communication and Socio-Emotional Skills**

Communication and socio-emotional skills are essential for teachers working with children in early childhood. Young children depend on clear instructions, positive reinforcement, and emotional support to feel safe and motivated during physical activity sessions (Yogman et al., 2018). Teachers must communicate using simple, encouraging language and demonstrate empathy, patience, and sensitivity to children's emotional and social needs. Through active listening and responsive interaction, teachers support children's self-esteem, cooperation, and emotional regulation (Bronfenbrenner & Morris, 2006). Consequently, socio-emotional competence is a critical aspect of the physical education teacher's professional profile.

### **The Teacher's Role in Creating a Safe and Inclusive Learning Environment**

Ensuring a safe and inclusive learning environment is a fundamental responsibility of the physical education teacher in early childhood education. Safety includes both physical factors, such as appropriate equipment, space management, and supervision, and emotional factors, including respect, trust, and positive social interactions (WHO, 2021). Inclusivity requires adapting activities to meet diverse abilities, developmental levels, and cultural backgrounds, ensuring that all children have equal opportunities to participate (UNESCO, 2015). A safe and inclusive environment fosters positive attitudes toward movement and promotes long-term engagement in physical activity, contributing significantly to children's overall well-being.

### **Collaboration with Families and Educational Institutions**

Collaboration with families and educational institutions is a key aspect of the physical education teacher's role. Effective communication with families supports consistency between school and home environments, reinforcing healthy habits and active lifestyles (WHO, 2019). Teachers should inform parents about children's progress, the benefits of physical activity, and ways to support movement at home. Additionally, collaboration with other educators and specialists enables an interdisciplinary approach to early childhood education, ensuring that physical education aligns

with broader educational goals (NAEYC, 2020). Such cooperation strengthens the quality and impact of physical education programmes.

### **3. Conclusions and Recommendations**

#### **Summary of the Main Findings**

This paper has examined, in general, the professional profile of the physical education teacher working with children aged 0–6 years, highlighting the complexity and importance of this role within early childhood education. The analysis confirms that physical education in early childhood is a fundamental component of children's holistic development, influencing motor, cognitive, social, and emotional domains. The findings emphasize that the effectiveness of physical education at this stage depends largely on the teacher's academic preparation, pedagogical competencies, communication abilities, and understanding of child development. In addition, the study underlines the central role of play-based, developmentally appropriate approaches in promoting meaningful learning experiences and positive attitudes toward physical activity from an early age.

#### **The Importance of the Teacher's Profile for Children's Development**

The profile of the physical education teacher is shown to be a key factor in supporting children's healthy growth and development during the preschool years. A well-qualified teacher can design safe, inclusive, and engaging movement experiences that foster fundamental motor skills and body awareness while also supporting emotional security and social interaction. The teacher's ability to communicate effectively, demonstrate empathy, and respond sensitively to individual differences contributes significantly to children's motivation and participation. Moreover, a strong professional profile enables the teacher to act as a facilitator of learning through play, encouraging creativity, cooperation, and self-regulation. Consequently, the physical education teacher plays a crucial role in laying the foundations for lifelong physical activity, health, and overall well-being.

## **Recommendations for Training, Educational Policies, and Further Research**

Based on the findings of this paper, several recommendations can be proposed:

First, teacher education programmes should place greater emphasis on early childhood physical education, ensuring that future teachers receive specialised training in motor development, psychomotor learning, and play-based pedagogical strategies. Ongoing professional development opportunities should also be provided to support teachers in updating their knowledge and skills in line with current research and international standards.

Second, educational policies should recognise physical education as a core element of early childhood curricula and ensure adequate resources, facilities, and qualified personnel in preschool settings. Policymakers should promote inclusive and child-centred approaches that guarantee equal participation opportunities for all children, regardless of ability or background.

Finally, further research is recommended to explore the long-term impact of early childhood physical education and the role of teacher competencies in shaping children's physical activity behaviours. Future studies could also investigate effective training models, cross-cultural perspectives, and innovative practices that strengthen the quality of physical education in early childhood education systems.

## **References**

- Bronfenbrenner, U., & Morris, P. A. (2006). The bioecological model of human development. In R. M. Lerner (Ed.), *Handbook of child psychology* (6th ed., pp. 793–828). Wiley.
- Gallahue, D. L., Ozmun, J. C., & Goodway, J. D. (2012). *Understanding motor development: Infants, children, adolescents, adults* (7th ed.). McGraw-Hill.
- National Association for the Education of Young Children (NAEYC). (2020). *Developmentally appropriate practice in early childhood programmes*. NAEYC.
- Nikaj, I. (2023). Society, Sports, Social Participation and Inclusion. Scientific Bulletin of UNIKO, No. 34, 262-277.
- OpenStax. (2023). *Lifespan development: Motor development and physical skills in early childhood*. <https://openstax.org>

- Pangrazi, R. P., & Beighle, A. (2019). *Dynamic physical education for elementary school children* (19th ed.). Human Kinetics.
- UNESCO. (2015). *International Charter of Physical Education, Physical Activity and Sport*. UNESCO Publishing.
- World Health Organization. (2021). *Standards for healthy eating, physical activity, sedentary behaviour and sleep in early childhood education and care settings*. WHO.
- Rojo-Ramos, J., González-Becerra, M. J., Gómez-Paniagua, S., & Adsuar, J. C. (2022). Psychomotor skills activities in the classroom from an early childhood education teacher's perspective. *Children*, 9(8), 1214. <https://doi.org/10.3390/children9081214>
- Trawick-Smith, J. (2014). *The physical play and motor development of young children: A review of literature and implications for practice*. Eastern Connecticut State University.
- World Health Organization. (2019). *Guidelines on physical activity, sedentary behaviour and sleep for children under 5 years of age*. <https://www.who.int>
- Yogman, M., Garner, A., Hutchinson, J., Hirsh-Pasek, K., & Golinkoff, R. M. (2018). The power of play: A pediatric role in enhancing development. *Pediatrics*, 142(3), e20182058. <https://doi.org/10.1542/peds.2018-2058>
- Zeng, N., Ayyub, M., Sun, H., Wen, X., Xiang, P., & Gao, Z. (2017). Effects of physical activity on motor skills and cognitive development in early childhood: A systematic review. *BioMed Research International*, 2017, 2760716. <https://doi.org/10.1155/2017/2760716>

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