

# **Digitalization in Preschool Behavior Monitoring: Teachers' Perceptions and Practices**

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## Abstract

### Keywords:

behavior monitoring, digitization, early childhood education, educational applications, teaching staff your

This study investigates preschool teachers' perceptions and practices regarding child behavior monitoring, along with their openness to digital solutions, within an educational context characterized by technology integration and the need for enhanced parent-teacher partnerships. Employing a descriptive design, the study involved administering an online questionnaire to preschool teachers from kindergartens in Cluj County, Romania, representing a range of ages and professional experience levels. The findings indicate a prevalence of traditional observation methods, such as written forms and handwritten notes, over digital tools. The main challenges identified in the use of digital instruments include time constraints for teachers and the lack of applications tailored to the specific needs of the kindergarten setting. However, most of the respondents express interest in using digital applications that facilitate automated report generation, personalized recommendations, and direct, efficient communication with parents. The conclusions emphasize the potential of a dedicated digital tool to meet the real needs of teachers and support a systematic process of behavioral monitoring in education.

## 1. Introduction

The preschool period is crucial for children's social and emotional development, and the behavior they display in kindergarten provides valuable insights into this process. Careful monitoring of children's behavior in educational settings serves a dual purpose: on the one hand, it enables educators to better understand each child's needs and interaction patterns; on the other hand, it provides concrete data for adjusting teaching strategies. In the classroom, appropriate behaviors (such as cooperation, rule-following, and engagement in activities) foster a conducive learning environment, while challenging behaviors (such as aggression, inattentiveness, and oppositional conduct) may disrupt the educational process. Research highlights a strong connection between social behavior and later academic success (Krasch & Carter, 2009), underscoring the importance of observing and guiding behavior from an early age.

The rapid digital transformations of recent decades have fundamentally reshaped various aspects of daily life, profoundly impacting the educational sector. Early childhood education, regarded as the foundation of human development, is no exception to this trend. The process of adapting and integrating digital technologies into the preschool context particularly influences core practices such as behavior monitoring

and assessment, as well as modes of communication and collaboration with families.

When attention is directed toward a deeper understanding of each child's individuality and specific needs, digital tools offer opportunities to enhance the efficiency and quality of the educational process (Albulescu & Catalano, 2021). The implementation of innovative technological solutions aims not only to optimize workflows but also to create an environment conducive to children's harmonious development—one based on effective collaboration among educators, parents, and specialists. This transition toward digitized education requires careful analysis of opportunities, limitations, and ethical, social, and pedagogical implications, in order to maximize benefits and minimize potential risks. In this regard, research and innovation in educational technology contribute to the creation of adapted tools and strategies designed to support children, families, and teachers in navigating this new digital reality.

Within the complex landscape of early childhood education, there is an increasingly acute need for the development and implementation of effective tools for documenting, analyzing, and sharing behavioral observations. Traditional observation methods—often reliant on handwritten notes, subjective evaluations,



and limited communication—present significant limitations in terms of efficiency, objectivity, and the potential for early intervention. However, the rapid pace of technological advancement has opened up substantial opportunities to overcome these constraints. The implementation of digital solutions in preschool behavior monitoring promises a range of benefits, including: (1) optimized data collection and storage; (2) facilitation of objective behavior analysis through advanced tools and algorithms; and (3) improved communication and collaboration among educators, parents, and specialists.

Recent studies confirm this trend and emphasize the benefits of technology use in early childhood education (Al-Hendawi et al., 2025). Digital solutions not only streamline processes but also enhance the accuracy and relevance of collected information, providing a solid foundation for personalized and needs-based interventions. Thus, the integration of technology into early childhood education becomes imperative for better understanding of behavior, more precise progress monitoring, and ultimately, for supporting the harmonious development of children.

## 2. Theoretical foundation

Systematic observation-based assessment has become a central tool in early childhood education, being recommended by professional organizations such as the National Association for the Education of Young Children (NAEYC) to support evidence-based pedagogical decision-making (Peterson & Elam, 2020). Monitoring preschool behavior involves the organized collection of information about what children do and how they respond in various learning situations. These data can be used to adapt the curriculum, enable early intervention in case of emerging behavioral issues, and communicate progress to parents.

Monitoring the behavior of preschool children essentially refers to the systematic observation and recording of how they act and interact within the kindergarten environment (Alford et al., 2016). Observation is considered one of the simplest yet most effective methods of assessing young children, as it allows educators to capture how a child learns and behaves in a natural context. By tracking behavior over an extended period and documenting it in detail (Chafouleas et al., 2013), educators can identify patterns of response and developmental needs, gaining insights into the child's personality and thinking style. Practically, consistent observation enables educators to better understand the reasons behind certain

behaviors (e.g., what triggers a frustration episode) and to identify potential special needs or developmental delays at an early age. Moreover, systematic documentation allows for tracking progress over time and appropriately adjusting teaching strategies.

In early childhood education, the assessment of preschool behavior relies on a multidimensional approach, combining direct and indirect methods to gain a comprehensive understanding of child development. This complex perspective is essential for the early identification of potential difficulties and for the effective adaptation of educational interventions.

### 2.1. The observer's level of involvement in the behavioral data collection process

#### 2.1.1. The descriptive approach (through direct observation)

Systematic observation represents a fundamental component of behavior assessment, allowing for a direct and contextualized understanding of a child's behaviors within their natural environment. This descriptive approach involves careful observation and detailed documentation of behaviors, interactions, and relevant events (McComas et al., 2009). Direct observation provides valuable information regarding the frequency, duration, and intensity of behaviors, as well as the contextual factors (antecedents, consequences) that influence them (Shapiro & Clemens, 2005). By using structured observation tools (e.g., behavioral rating scales, observation checklists), the evaluator can record objective and reproducible data, offering a solid foundation for further analysis and informed educational decision-making (Kilgus et al., 2014).

#### 2.1.2. The indirect approach (interviews and rating scales)

In addition to direct observation, a comprehensive approach to behavioral assessment also employs indirect methods such as interviews and rating scales (Kelley et al., 2011). Structured or semi-structured interviews with parents, educators, or other significant caregivers offer valuable insights into the child's behavior across various contexts (e.g., at home, in kindergarten, during social interactions). These interviews help identify risk factors, behavioral history, and previously implemented intervention strategies.

Rating scales, completed by adults who interact with the child, represent another useful tool in behavioral assessment (Chafouleas et al., 2010). These

scales are typically standardized and provide quantitative scores and behavioral profiles. Through such instruments, atypical behaviors, emotional or social difficulties, adjustment challenges, as well as the child's strengths can be identified (Tucker et al., 2017).

The combination of descriptive approaches (through observation) and indirect methods (interviews, rating scales) enables the development of a complex and nuanced picture of the child's behavior, supporting a holistic understanding of their development and informing effective educational and therapeutic interventions. This multimodal approach is essential for early, personalized, and effective intervention practices.

## 2.2. *The degree of structure and standardization of the tools used in the observation process*

The process of assessing preschool behavior involves the use of a variety of tools that differ in their degree of structure and standardization. This variation influences objectivity, comparability of results, and ability to generalize conclusions (Briesch et al., 2015).

### 2.2.1. *Standardized assessment system*

Standardized assessment systems, such as behavioral rating scales, are scientifically validated tools that provide quantitative scores and behavioral profiles (Kelley, 2011). These scales are typically administered by professionals (psychologists, counselors) and allow for the evaluation of a child's behavior in comparison with a normative sample, facilitating the identification of potential deviations or difficulties (Denham, 2012; Reynolds & Kamphaus, 2015). Standardized instruments are based on fixed protocols validated through multiple studies, ensuring consistency and enabling the comparison of results across different groups of children. Notable examples include: CLASS (Classroom Assessment Scoring System) – which evaluates the quality of teacher–child interactions and the classroom climate; inCLASS (Individualized Classroom Assessment Scoring System) – which focuses on individual child behavior, analyzing how the child interacts with adults and peers, engages with tasks, and manages conflicts; ASEBA (Achenbach System of Empirically Based Assessment) – a comprehensive system for assessing emotional and behavioral problems, as well as strengths in children and adolescents, with multiple forms tailored to different informants; BASC (Behavior Assessment System for Children) – which assesses emotional and behavioral problems (similar to ASEBA), but also includes personality traits (e.g.,

anxiety, depression, aggression, hyperactivity, atypicality) and adaptive skills (e.g., school adjustment, social competence) (Reynolds et al., 2011). The use of standardized systems enhances the objectivity of the assessment process, allows for cross-evaluator comparisons, and provides relevant data to inform educational and therapeutic intervention planning.

### 2.2.2. *Non-standardized systems*

Non-standardized systems involve the use of more flexible, non-uniform observation methods that allow for capturing the complexity of educational situations in more nuanced and context-sensitive terms. These include descriptive notes, reflective journals, narrative recordings, or open observations conducted without a rigid methodological framework (McComas et al., 2009). Direct observation by teachers involves careful monitoring and detailed documentation of behaviors, interactions, and relevant events. Interviews with parents and educators complement the information gathered through observation by offering a contextualized perspective on the child's behavior.

These methods allow for assessment in naturalistic settings, highlighting situational dynamics and the specific characteristics of the educational environment. Non-standardized tools, such as narrative journals and structured observation sheets, can provide a nuanced picture of behaviors, but they tend to be more subjective and less comparable than standardized systems. Although they offer a detailed and context-rich perspective on the child's behavior, these instruments raise concerns about external validity and result comparability. Nevertheless, in practice, they prove useful in the process of individualized educational intervention, where adaptability and qualitative interpretation are essential (Kelley et al., 2011).

## 2.3. *Theoretical frameworks in behavior assessment*

Behavior monitoring in early childhood education is grounded in multiple theoretical paradigms, reflecting a complex evolution of approaches to understanding and intervening in children's behavior.

One of the most influential perspectives is the behaviorist approach, which emphasizes the direct analysis of observable behaviors and the functional relationship between antecedents, behavior, and consequences—known as the ABC model (Bijou & Baer, 1961; Cooper et al., 2007). Within this framework, Functional Behavior Assessment (FBA)

serves as a key tool, frequently used in school psychology and applied behavior analysis to identify the function of problematic behavior and guide corrective interventions (O'Neill et al., 2015). Systematic monitoring plays a central role in this process, providing relevant data for understanding behavioral contexts and informing evidence-based interventions.

In contrast, child development theories, particularly those inspired by sociocultural constructivism (Vygotsky, 1978), propose a broader vision of observation. In this framework, observation is not solely for behavior correction but becomes a fundamental means of understanding the child in relation to their social and educational environment (Albulescu & Catalano, 2021). The educator is viewed as a “reflective practitioner”, who observes how children explore, communicate, and interact in order to personalize the educational experience and create inclusive learning environments (Carr & Lee, 2012).

In contemporary approaches, behavior monitoring is increasingly linked to the social-emotional dimension of development. The goal is not only to identify and correct inappropriate behaviors but also to understand their emotional underpinnings—such as emotional regulation difficulties, anxiety, or frustration—which can manifest through subtle yet significant behavioral cues (Denham et al., 2012). Skilled observers can detect early signs of emotional imbalances and respond with preventive and empathetic interventions.

Behavior monitoring also has important applications in the early identification of developmental or behavioral disorders. Many studies on classroom observation focus on children considered “at risk” (e.g., predisposed to behavioral disorders or diagnosed with ADHD), precisely because observation yields critical data for detection and assessment. A recent meta-review (Al-Hendawi et al., 2025) found that over half of the studies using standardized observation systems in preschool settings focused on children with emotional-behavioral disorders or ADHD. The tools used frequently assessed aspects such as emotional regulation (42% of studies) and externalizing behaviors (21%), highlighting the importance of monitoring not only for ensuring quality education but also as part of early intervention strategies for children with special needs.

Furthermore, the theoretical foundations of behavior monitoring now include the integration of technological advancements. Traditionally, direct

observation involved the physical presence of an observer in the classroom and manual recording of behaviors. In recent years, however, researchers have begun to employ digital tools—from video recordings of classroom interactions for later analysis, to tablet-based coding apps and even wearable sensors. Video-based studies allow researchers to detect subtle patterns in behavior and social interaction, which can then be analyzed in detail using specialized coding frameworks (Ribeiro et al., 2020). For instance, a video coder can record not only whether a behavior occurred, but also its duration, the exact sequence of events, and the responses of peers and adults (Green et al., 2022). These technology-enhanced approaches, partly derived from experimental psychology, significantly enrich the understanding of classroom dynamics and generate large volumes of data for research. At the same time, they raise new questions about how to integrate technology into routine kindergarten practices while maintaining a balance between naturalistic observation and technological intrusion.

Contemporary digital transformations are exerting a significant influence on early childhood education, particularly in the methods used to monitor children's behavior and to enhance communication with families. In this context, there is a growing need for the development and implementation of efficient digital tools that enable precise documentation, rigorous analysis, and rapid sharing of observations made in educational settings (Al-Hendawi et al., 2025). Such tools are becoming essential for optimizing the educational process, contributing both to a deeper understanding of children's behavior and to improved interaction with parents and other key stakeholders.

### 3. Research methodology

#### 3.1. Type of Research

The present research is situated within the constructivist paradigm, which is based on the premise that educational reality is socially constructed and subjectively interpreted by the actors involved in the educational process. The main objective is to explore how educators understand, apply, and evaluate practices of observing children's behavior, in relation to available resources and the specific institutional dynamics. The study does not aim to identify fixed causal relationships. The constructivist paradigm is appropriate for studies that seek to understand individual and collective experiences that are culturally and professionally contextualized, as is the case in this applied research.

Although a quantitative tool—a questionnaire—was used, it served an exploratory rather than a confirmatory purpose, aiming to capture trends, attitudes, and perceptions relevant to designing a digital tool aligned with the real needs of preschool education. This approach aligns with the methodological views of authors such as Lincoln and Guba (1985), who argue that the validity of constructivist research derives from the depth of contextualization and the relevance of interpreting phenomena from the perspective of those involved.

The applied and exploratory nature of this research supports the goal of investigating current practices in preschool behavior monitoring, the needs of educators engaged in these processes, and the potential for integrating an appropriate digital solution.

The choice of a quantitative, descriptive-exploratory approach was driven by the need to obtain an overview of the current state of behavioral observation practices in preschool settings and the level of openness toward integrating digital technologies into this process. The use of a *structured questionnaire* provided the advantage of standardized responses, enabling rapid data collection and coherent, comparable analysis.

Given that the field of digital behavior monitoring in early childhood education is relatively new and underexplored in the Romanian context, an exploratory approach was deemed appropriate for identifying key areas of interest, the actual needs of educators, and possible barriers to implementing an innovative solution. Additionally, the inclusion of open-ended items in the questionnaire allowed for the collection of complementary qualitative data, which may contribute to the development of research hypotheses for future confirmatory studies.

### 3.2. Sample

The study involved 44 preschool educators employed at three public kindergartens in the city of Cluj-Napoca. The selection of the institutions was based on urban location, institutional size, and willingness to participate. A convenience sampling method was used, justified by the exploratory nature of the investigation and its contextual character. The choice of convenience sampling was influenced by institutional access, the feasibility of administering the instrument in the field, and the professional relevance of the participants.

Although this type of sampling does not allow for statistical generalization of the results, it is commonly

used in applied educational research and provides a valuable basis for contextual analyses and the design of tailored interventions or tools.

The participants' profile was analyzed according to factors such as professional experience, level of training, frequency of behavior observation practices, and familiarity with digital tools.

### 3.3. Objectives, hypotheses, and research questions

Starting from the general aim of the research—to identify the methods used for monitoring preschoolers' behavior and to analyze the potential use of a digital application—the following objectives were formulated:

O1 – To investigate the frequency and methods of traditional behavioral observation used by educators in the kindergartens included in the study.

O2 – To assess the level of familiarity with and use of digital platforms in teachers' professional activities.

O3 – To identify educators' perceptions of the potential benefits that a digital application could bring to the behavior monitoring process.

O4 – To identify perceived challenges in using such an application (technical, ethical, organizational).

O5 – To examine the willingness of educators to integrate a digital solution into their professional practice.

The working hypotheses were derived from the research objectives:

H1: Most educators use behavioral observation methods in an informal and occasional manner, without a standardized systematic framework.

H2: The level of familiarity with digital technology varies according to teachers' professional experience and prior training.

H3: Educators perceive the integration of a digital application for behavior monitoring positively, highlighting benefits such as efficiency and accuracy.

H4: The challenges perceived in using a digital solution are primarily related to a lack of technical training and the time required for implementation.

H5: The willingness to integrate a digital application is higher among educators who already use technology in other aspects of their educational practice.

### 3.4. Research Instrument

The primary instrument used for data collection was a *structured questionnaire*, developed in accordance with the proposed objectives. It was composed of five thematic sections:

a) respondent profile – demographic and professional information (age, experience, initial and continuing training);

b) current observation practices – frequency, types of behaviors observed, and methods used in traditional observation;

c) digitization in behavioral observation – frequency of use, level of comfort, and types of platforms or applications currently used;

d) perceptions of the benefits of a digital solution – efficiency, accuracy, transparency, timesaving, and educator–family communication;

e) perceptions of challenges – technical difficulties, resistance to change, confidentiality, and logistical concerns.

The questionnaire included both closed-ended items (using Likert scales and multiple-choice questions) and open-ended questions to capture participants' personal perspectives.

### 3.5. Data Collection Procedure

The questionnaire was administered in digital format (via Google Forms) over a two-week period. Participation was voluntary, and all data were anonymized and handled in accordance with ethical and confidentiality principles specific to educational research.

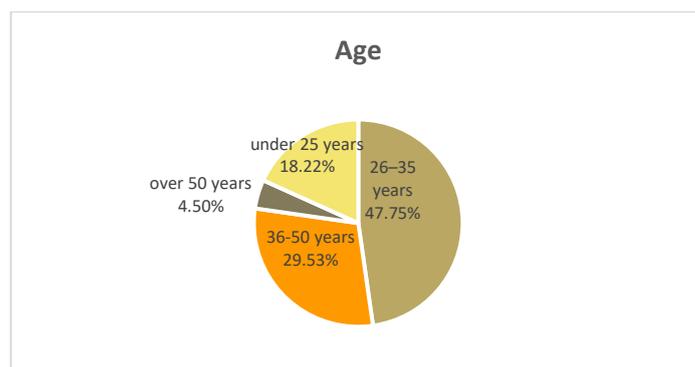
The responses were compiled into a database and analyzed using *descriptive statistics* (frequencies, percentages, means) with the aim of highlighting predominant trends and drawing conclusions about the educators' readiness and openness to integrating a digital application for behavior monitoring. The collected data were also correlated with respondents' professional characteristics to identify potential patterns in practices or attitudes.

## 4. Results

The results from Figure 1 indicate that the majority of participating educators are relatively young, in the first two decades of their professional careers, which may influence their openness to digital innovations and adaptability to methodological changes.

**Figure 1**

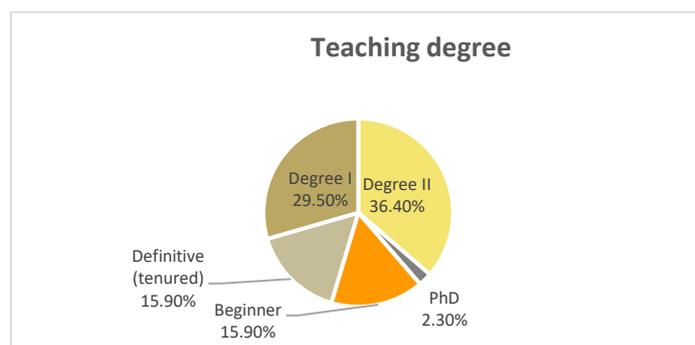
*Age distribution of the sample*



The high proportion of educators holding advanced professional ranks (Grade I and II) suggests a sample composed of individuals with significant experience and professional qualifications, which lends practical validity to their responses regarding behavioral observation (Figure 2).

**Figure 2**

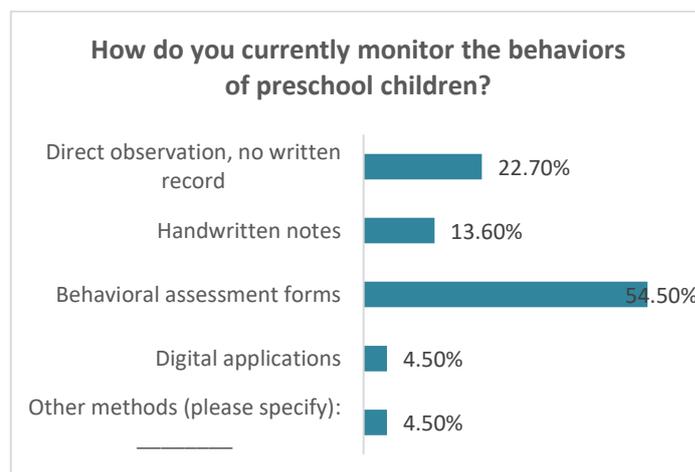
*Distribution of the sample by level of expertise/professional rank*



The analysis of the questionnaire data in Figure 3 revealed several significant trends regarding the methods used by educators to observe preschoolers' behavior, the frequency of their application, the challenges encountered in the process, and the ways in which information is communicated to families.

**Figure 3**

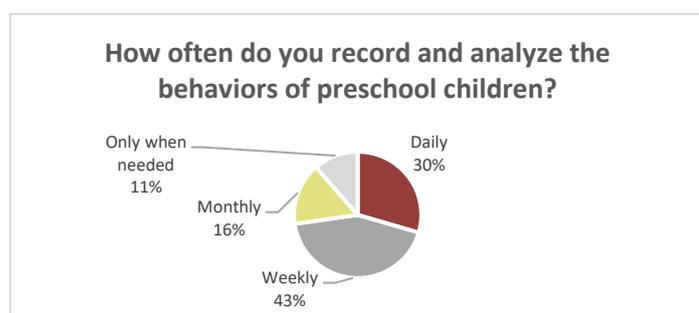
*Current methods of behavior monitoring*



The most frequently used practice is the completion of behavioral assessment sheets (54.5%), indicating a preference for semi-structured, relatively formalized methods. However, a significant proportion of respondents (22.7%) reported using direct observation without written documentation, suggesting an intuitive process that is difficult to systematically record or analyze. Other practices, such as handwritten notes (13.6%) or digital applications (4.5%), were reported to a lesser extent. The distribution from Figure 4 indicates that traditional methods continue to dominate, while the integration of technology into this process remains marginal.

Figure 4

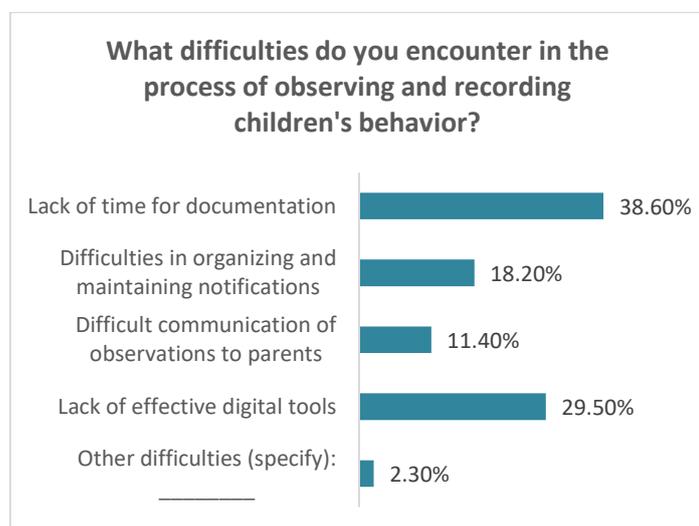
Frequency of behavior observation



When asked about the frequency with which they record and analyze children's behaviors, most educators reported sustained activity: 43% stated they do so weekly, and 30% daily. Only 16% mentioned conducting behavior analysis monthly, while 11% intervene only "when necessary." The data from Figure 5 confirm a genuine interest in behavior monitoring as part of daily teaching practice, although the lack of a unified framework and effective tool may affect the consistency and continuity of this process.

Figure 5

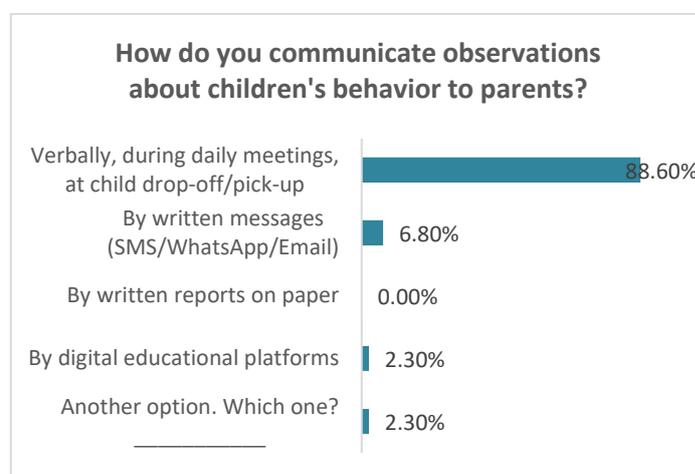
Identified challenges



Among the difficulties encountered by educators in the process of observing and documenting children's behavior, the most frequently reported, as shown in Figure 6, were lack of time allocated for documentation (36.4%) and the absence of efficient digital tools (29.5%). Other obstacles include challenges in organizing and storing records (18.2%) and difficulties in communicating observations to parents (11.4%). These challenges reflect both the structural constraints of the educational environment and the need for an integrated technological solution to effectively support the collection and transmission of information.

Figure 6

Modes of communication with parents



The communication of observation results to parents is predominantly informal and verbal, occurring during daily interactions at drop-off and pick-up times (88.6%). Written communication is almost nonexistent: only 6.8% report using messages (SMS/WhatsApp/email), and educational platforms are used at a very low rate (2.3%). The lack of written traceability may affect the transparency and consistency of collaboration between families and educators regarding behavioral interventions.

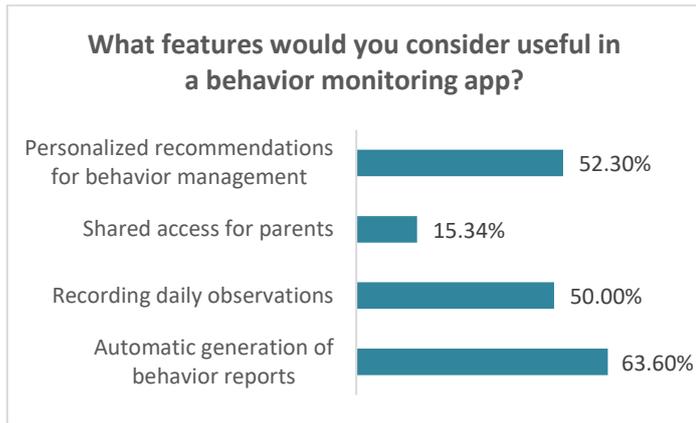
The results show that, although educators demonstrate a high level of involvement in observing children's behavior, the methods used are largely traditional, unstandardized, and difficult to manage over time. The reported challenges highlight *the urgent need for an intuitive, efficient, and contextually adapted digital tool* to support both documentation and clear communication with parents.

The analysis of responses, from Figure 7, reveals *a significant openness* toward the idea of using a digital application for monitoring preschool behavior, provided that it meets concrete, practice-based needs. The most valued features mentioned by participants

were: *automatic generation of behavioral reports* (63.6%), *personalized recommendations for behavior management* (52.3%), and *daily observation recording* (50%). Parental access to the application was considered useful by a smaller proportion (15.3%), indicating a stronger preference for internal-use tools intended for educators as professional observers and intervention agents.

Figure 7

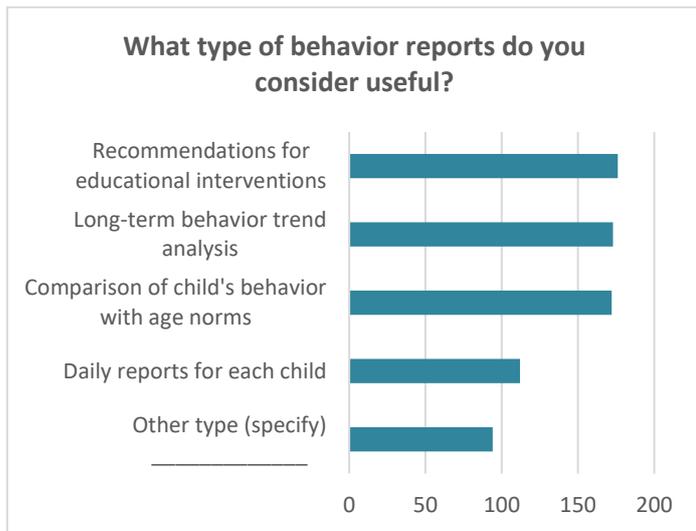
Perceived useful features in a digital application



Regarding *the overall perception of the functionality* of such an application, 93% of respondents stated that they consider it useful *to a great or very great extent*, highlighting *the high potential for acceptance* of a digital solution—as long as it is intuitive, efficient, and tailored to the specific context of kindergarten activities.

Figure 8

Types of Behavioral Reports



The types of behavioral reporting preferred by educators clearly indicate, in Figure 8, *a shift toward synthetic, interpretive formats with direct pedagogical value*, as opposed to daily or strictly descriptive reports. The most appreciated forms of reporting were:

*analysis of long-term behavioral trends, personalized recommendations for educational interventions, and comparison of the child's behavior with age-specific developmental norms.* These preferences suggest a real need for tools that not only record behavior but also provide *integrated, interpretive, and contextually relevant information* to support educational decision-making.

In contrast, *daily individual reports* were less appreciated, which may reflect a perception that they are *inefficient in terms of time investment versus pedagogical value*—especially in the absence of proper digitization to automate the process. This points to an educator profile focused on *strategic, longitudinal monitoring*, prioritizing quality and usefulness over excessive frequency or bureaucratic detail.

Regarding *parental involvement*, the vast majority of respondents (95%) were in favor of granting parents some level of access, yet they *preferred partial control over the information*—through notifications or selective reports. This suggests a need for features that allow *filtering and tailoring communication* based on the nature of observed behaviors. The results reflect a *controlled openness* to family involvement, supporting more transparent communication, while still requiring careful management to maintain professional boundaries and protect sensitive data.

*A flexible, user-friendly, analytics-oriented, and partially shareable application* emerges as the preferred model—one that supports the educator's daily work, reduces bureaucratic load, and facilitates constructive communication with families.

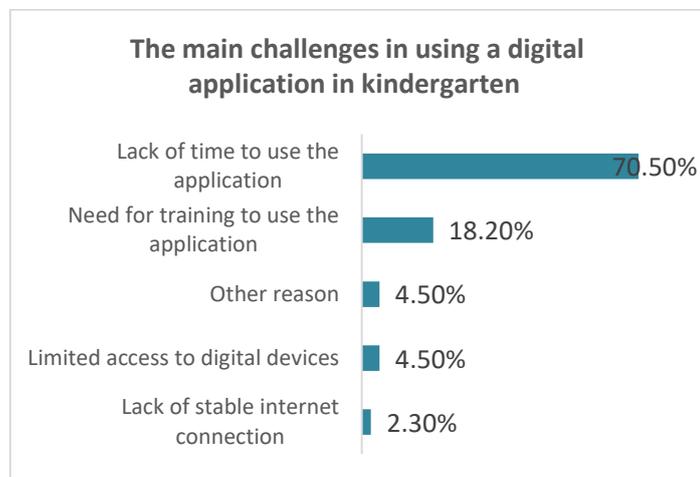
Despite limited prior experience, the data reveal a *generally favorable attitude* toward the use of a digital application for behavior monitoring. Only 14% of respondents reported previous use of such an app and found it useful, while 84% stated that they had never used one but were interested in adopting it. Only 2% considered such applications unnecessary. These figures suggest *a high potential for adoption*, provided the tool is accessible and practically relevant.

However, beyond this openness, the analysis of perceived difficulties, from Figure 9, reveals significant organizational barriers. The most frequently cited obstacle was the lack of time to use the application (70.5%), followed by the need for training in the use of new technologies (18.2%). Limited access to digital devices (4.5%) and poor connectivity (2.3%) were reported to a lesser extent, suggesting that the challenges are not primarily

technical, but rather related to integration into professional routines and the digital competencies of the staff.

**Figure 9**

*Perceived challenges in using digital applications in kindergartens*



The devices preferred by the majority of educators for using the application were identified as computers or laptops (64%)—considered the optimal option—followed by kindergarten-owned tablets (18%) and personal smartphones (16%). This distribution highlights the need for the *application to be compatible with multiple types of devices*, but especially optimized for desktop/laptop use, likely due to the comfort provided in data entry and report visualization.

Regarding the amount of daily time that could be allocated to using the application without disrupting educational activities, 52% of respondents estimated a reasonable interval of 5–10 minutes, while 25% could allocate between 10–20 minutes, and 14% less than 5 minutes. Only 9% stated they could dedicate more than 20 minutes per day to this process. These findings point to the necessity for the application to be *highly efficient, intuitive, and streamlined in its workflow*, so that it can be integrated into the fast-paced preschool environment without adding excessive bureaucratic workload.

## 5. Discussions

The analysis of the results highlights several key aspects regarding current practices in monitoring preschoolers' behavior and educators' perceptions of integrating technology into this process. The respondents' profile—relatively young educators with a high level of professional qualification—suggests a strong potential for adaptability to digital solutions (H2), creating a favorable context for the introduction of a dedicated digital tool (H3).

In terms of behavioral observation methods in use, traditional, semi-structured tools (such as behavioral evaluation sheets) clearly prevail over digitized or automated methods (H1). While there is a clear interest in the frequent monitoring of children's behavior, the lack of a unified framework and effective technological solutions affects the coherence, standardization, and efficiency of this process.

The identified challenges—such as the lack of time for documentation and the absence of specialized digital tools—reflect organizational constraints and inadequate digital infrastructure (H4). Communication with parents, carried out almost exclusively through verbal, informal means and lacking traceability, reveals an underutilized area for developing systematic family collaboration.

Against this background, there is significant openness to the use of a digital application for behavioral monitoring, provided it responds to concrete needs and does not add to bureaucratic workload (H5). The functionalities perceived as most useful—automated report generation, personalized recommendations, and daily observation logging—indicate a clear demand for a tool with real pedagogical value, capable of supporting educational analysis and decision-making.

At the same time, perceptions regarding parental involvement show a preference for partial and controlled access to behavioral information, signaling a legitimate concern for data protection and maintaining balance in the educator–family relationship. The barriers to using such an application are not primarily technical, but organizational: lack of time and the need for training are more frequently cited than device availability or connectivity issues, suggesting the need for an integrated approach to implementation.

## 6. Conclusions

The study highlights a genuine and sustained interest among preschool educators in monitoring children's behavior, the limitations posed by traditional methods, and the early stage of development for specialized digital tools. In this context, there emerges a clear opportunity for the development of digital applications designed to facilitate documentation, analysis, and communication of behavioral observations.

The main qualities of such digital solutions should include the validity, accuracy, and relevance of behavioral descriptors, while also meeting key

technical requirements such as ease of use, compatibility with existing equipment, automated report generation, and smooth integration into educators' professional routines. Additionally, the application should offer controlled communication options with parents, ensuring transparency and collaboration without compromising the educator's professional role.

The significant openness toward adopting such an application, despite limited prior experience, confirms a high potential for acceptance—if implementation is supported through training, technical assistance, and adaptation to real-world classroom conditions. A well-designed digital tool could thus substantially enhance the efficiency and professionalism of behavior observation practices in preschool education, contributing to a more coherent, evidence-based, and collaborative educational process.

#### Authors note:

**Ana-Maria Crișan** is a doctoral researcher at the Education, Reflection, Development Doctoral School and an associate lecturer at the Faculty of Psychology and Educational Sciences, Babeș-Bolyai University. Her academic background integrates educational psychology and sociology, supported by extensive experience in psycho-pedagogical counseling, parental counseling, and the development of students' socio-emotional competencies. Her research interests include innovative educational technologies, strategies for optimizing instructional processes, and the development of evidence-based approaches to parental counseling as a key component of the school-family partnership.

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