

MODERN TECHNOLOGIES FOR ENHANCING FATHERS' EMOTIONAL AND COGNITIVE INVOLVEMENT IN CHILDREN'S PSYCHOLOGICAL PREPARATION FOR SCHOOL

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Abstract

The transition from preschool to formal schooling is one of the most significant developmental stages in a child's life. Successful adaptation to school depends not only on children's cognitive readiness but also on their emotional stability, social competence, motivation, self-regulation, communication skills, and confidence in their ability to learn. In this context, parental involvement plays a crucial role, while fathers' emotional and cognitive participation has increasingly attracted attention in contemporary educational and psychological research. The present article examines modern technologies and pedagogical approaches aimed at increasing fathers' emotional and cognitive involvement in preparing children psychologically for school. Particular attention is given to digital educational platforms, mobile applications, gamification, interactive learning environments, artificial intelligence-supported educational tools, video-based parent training, digital storytelling, and family-based project activities. The article argues that modern technologies should not replace direct parent-child interaction but should serve as instruments for strengthening meaningful communication, emotional support, cognitive stimulation, and collaborative learning. The study also identifies the psychological and pedagogical conditions necessary for effective father involvement and proposes a model for integrating fathers into the process of children's school readiness. The findings suggest that systematic and technology-supported father involvement can contribute significantly to children's emotional security, cognitive development, learning motivation, self-regulation, and successful adaptation to school.

Keywords: Father involvement, school readiness, psychological readiness, emotional involvement, cognitive involvement, preschool education, digital technologies, artificial intelligence, gamification, parental engagement, child development, school adaptation, family education.

Introduction

The transition from preschool education to formal schooling represents a critical developmental period in a child's life. Starting school involves significant changes in children's daily routines, social relationships, responsibilities, learning activities, and expectations. A child entering school is expected not only to possess basic cognitive abilities but also to demonstrate



emotional stability, independence, self-regulation, communication skills, motivation, and readiness to interact with teachers and peers. Therefore, school readiness should be understood as a multidimensional phenomenon that encompasses cognitive, emotional, social, motivational, communicative, and behavioral components.

Traditionally, the preparation of children for school has been considered primarily the responsibility of mothers, preschool teachers, and educational institutions. However, contemporary research on family involvement increasingly emphasizes the significant contribution of fathers to children's cognitive, emotional, and social development. Fathers can provide children with distinctive forms of interaction, problem-solving experiences, emotional support, exploratory activities, and communication patterns that complement the educational influence of mothers and teachers.

Father involvement is not limited to physical presence in the family. It includes emotional availability, communication, encouragement, shared activities, cognitive stimulation, participation in educational decision-making, and support for children's autonomy. From this perspective, the quality of father-child interaction may be particularly important during the transition to school.

At the same time, the rapid development of digital technologies creates new opportunities for strengthening parental involvement. Mobile applications, online educational platforms, interactive games, video communication, digital storytelling, artificial intelligence-supported learning tools, and virtual parent-training programs can help fathers participate more actively in children's educational and psychological preparation, even when their daily professional responsibilities limit their time.

The purpose of this article is therefore to analyze modern technologies for enhancing fathers' emotional and cognitive involvement in children's psychological preparation for school and to identify pedagogical and psychological conditions for their effective implementation.

1. Psychological Readiness for School as a Multidimensional Concept

Psychological readiness for school refers to a complex system of psychological characteristics that enables a child to adapt successfully to formal education. It cannot be reduced to the ability to read, write, count, or recognize letters and numbers. Although these academic skills are important, successful school adaptation also requires emotional maturity, social competence, motivation, self-regulation, and the ability to follow rules and interact with others.

From a developmental psychological perspective, school readiness may be considered through several interconnected components.

1.1. Cognitive readiness

Cognitive readiness includes attention, memory, perception, thinking, language development, problem-solving abilities, curiosity, and the ability to establish logical relationships. A cognitively prepared child demonstrates an interest in new information and is able to concentrate on a task for an appropriate period of time.

Fathers can contribute to cognitive readiness through everyday activities such as reading books together, solving puzzles, constructing objects, discussing stories, playing board games, asking questions, and encouraging children to explain their ideas.



1.2. Emotional readiness

Emotional readiness involves the child's ability to recognize and regulate emotions, tolerate frustration, cope with temporary failure, and seek appropriate support from adults. School introduces numerous situations in which children may experience uncertainty, competition, mistakes, criticism, and separation from parents.

Therefore, a father's emotional availability can provide an important source of psychological security. When fathers listen attentively, validate children's emotions, encourage them after failure, and communicate confidence in their abilities, children may develop greater emotional resilience.

1.3. Motivational readiness

Motivational readiness refers to a child's desire to learn, explore, communicate, and participate in educational activities. Children who perceive learning as an interesting and meaningful process are more likely to demonstrate active engagement in school.

Fathers can strengthen children's intrinsic motivation by transforming learning into a shared experience rather than a compulsory task.

1.4. Social readiness

Social readiness involves the ability to cooperate, communicate, follow rules, resolve conflicts, share materials, wait for one's turn, and respect other people. Fathers can support these abilities through cooperative games and family activities requiring negotiation and shared decision-making.

Thus, psychological readiness for school is multidimensional, and fathers can influence nearly all of its components.

2. The Role of Fathers in Children's Psychological Preparation for School

Father involvement can be conceptualized through two major dimensions: emotional involvement and cognitive involvement.

Emotional involvement refers to the father's ability to establish a warm, supportive, and psychologically secure relationship with the child. It includes affection, active listening, encouragement, empathy, acceptance, and emotional responsiveness.

Cognitive involvement, in contrast, concerns the father's participation in activities that stimulate intellectual development, curiosity, language, reasoning, creativity, and problem-solving.

These two dimensions are closely interconnected. A child is more likely to engage in cognitively challenging activities when he or she feels emotionally secure.

For example, when a father and child complete a puzzle together, the father can simultaneously provide emotional encouragement and cognitive stimulation. If the child makes a mistake, the father's response can either increase anxiety or transform the mistake into a learning opportunity.

Instead of saying:

“You are doing it wrong.”

the father may say:



“Let us think about another way to solve it.”

Such communication develops not only problem-solving skills but also resilience, self-confidence, and a positive attitude toward mistakes.

Therefore, effective father involvement should combine emotional support with cognitive stimulation.

3. Modern Technologies for Increasing Fathers' Emotional Involvement

The contemporary digital environment provides fathers with new opportunities to participate in their children's psychological development.

3.1. Mobile applications for parent-child interaction

Mobile applications can provide fathers with short, structured activities that can be completed with children at home. Such activities may include emotional recognition games, storytelling tasks, memory exercises, puzzles, and communication activities.

For example, a mobile application may provide a daily five-minute activity:

“Ask your child about three things that made them happy today.”

Another activity may be:

“Choose an emotion and tell a short story about a situation when you experienced it.”

Such simple activities can strengthen emotional communication between fathers and children.

The main advantage of these technologies is flexibility. Fathers who have limited time because of work can participate in meaningful activities without requiring long periods of preparation.

3.2. Digital storytelling

Digital storytelling is another effective tool for emotional involvement. Fathers can create short stories together with their children using pictures, audio recordings, animation, or simple presentation tools.

A child may choose the main character, while the father asks:

What is the character feeling?

Why does the character feel this way?

What should the character do?

How can we help the character?

Such questions stimulate emotional intelligence, imagination, language development, and critical thinking.

Digital storytelling can therefore transform technology from a passive entertainment medium into an instrument of parent-child communication.

3.3. Video-based parent training

Short video courses can help fathers understand the psychological characteristics of children preparing for school. Such programs may focus on:

emotional regulation;

positive communication;

child motivation;

managing frustration;

supporting independence;



developing attention;

reducing school-related anxiety.

Video-based training is particularly useful because fathers can access educational materials at a convenient time.

4. Modern Technologies for Enhancing Fathers' Cognitive Involvement

Cognitive involvement requires fathers to become active participants in children's intellectual development rather than simply monitoring their academic progress.

4.1. Educational games and gamification

Gamification introduces game elements into educational activities. Points, challenges, levels, rewards, missions, and collaborative tasks can make learning more attractive to children.

However, the most effective model is not simply giving a child access to an educational game but playing and discussing it together.

For example, after completing a mathematical game, the father may ask:

“How did you find the answer?”

or:

“Can you show me another way to solve this problem?”

Such questions encourage metacognitive development because the child learns to reflect on the process of thinking rather than only the final answer.

4.2. Interactive digital learning platforms

Interactive platforms can provide age-appropriate materials for reading, mathematics, science, language development, memory, and logical thinking.

Fathers can use these resources as a basis for joint learning sessions. The important principle is that digital content should function as a starting point for interaction, rather than replacing human communication.

For instance, after watching a short educational video about animals, the father can ask:

Which animal did you like most?

Why?

Where does it live?

What does it eat?

What would happen if its habitat disappeared?

Such questions transform passive media consumption into active cognitive engagement.

Conclusion

The psychological preparation of children for school is a complex process that requires the coordinated participation of the child, family, preschool educators, psychologists, and the broader educational environment. Within this system, fathers' emotional and cognitive involvement represents an important but sometimes underutilized resource.

Emotional involvement helps children develop security, confidence, resilience, emotional regulation, and positive attitudes toward learning. Cognitive involvement contributes to language development, curiosity, reasoning, problem-solving, attention, memory, and learning



motivation. When these two dimensions are combined, fathers can make a substantial contribution to children's successful transition to school.

Modern technologies provide new opportunities to strengthen this involvement. Mobile applications, digital storytelling, educational games, gamification, interactive platforms, video-based parent training, artificial intelligence, virtual learning environments, and digital family projects can make father participation more accessible and systematic.

At the same time, the central principle should remain clear: technology should strengthen human interaction rather than replace it. The most productive educational environment emerges when digital tools are combined with direct communication, emotional support, shared play, reading, discussion, exploration, and reflection.

Therefore, the contemporary model of father involvement may be conceptualized as: emotionally supportive father + cognitively stimulating interaction + appropriate digital technology + regular joint activity = stronger psychological readiness for school.

In this context, increasing fathers' participation should not be understood simply as increasing the amount of time they spend with their children. The key objective is to improve the quality, emotional sensitivity, cognitive richness, and developmental value of father-child interaction. Consequently, educational institutions should develop systematic programs that equip fathers with practical psychological and pedagogical strategies and provide them with accessible digital resources. Such an approach can transform fathers from passive observers of children's school preparation into active partners in their children's educational development.

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