

PRIMARY SCHOOL PUPILS’ EMOTIONAL RESPONSES TO INTERACTING WITH ARTIFICIAL INTELLIGENCE: INTEREST, TRUST, AND ANXIETY

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Abstract: This article examines primary school pupils’ emotional responses to using artificial intelligence (AI) technologies in education, with particular attention to interest, trust, and anxiety, through a theoretical and analytical approach. It outlines pedagogical and psychological conditions for supporting pupils’ psychological safety in digital learning environments, fostering well-founded trust in technology, and encouraging cognitive interest. Practical recommendations for reducing anxiety associated with the use of AI tools are also presented.

Keywords: artificial intelligence, primary education, emotional responses, interest, trust, anxiety, cognitive development, psychological environment

INTRODUCTION

The digitalisation of contemporary education and the introduction of artificial intelligence (AI) technologies into teaching and learning may influence not only pupils’ cognitive development but also their emotional and psychological well-being. Primary education represents an important stage in children’s personal development, the maturation of their perceptual processes, and the formation of their initial attitudes towards technology. Pupils are increasingly becoming active participants who interact with AI rather than merely receiving information in a ready-made form.

However, integrating AI into education may also give rise to psychological challenges. Younger pupils may experience anxiety about using digital systems, rely uncritically on information generated by technology (reflecting poorly calibrated trust), or, conversely, become less interested in new tools because of excessive caution.

The aim of this article is to analyse theoretically the main psychological factors shaping primary school pupils’ emotional responses to interacting with AI - interest, trust, and anxiety - and to develop pedagogical recommendations for maintaining an appropriate balance among these factors.

MATERIALS AND METHODS

This article is a theoretical and analytical study. The materials considered comprise the works listed in the references on primary education pedagogy, child psychology, pedagogical practice, and creativity. These sources provide a conceptual basis for discussing pupils’ emotional responses to AI; they do not constitute a systematic review of empirical studies on AI in primary schools.

The study employed content analysis, comparative analysis, and theoretical synthesis. Content analysis was used to classify factors that may influence pupils’ emotional responses when interacting with AI. Conceptual comparative analysis was used to examine, at a theoretical level, the psychological characteristics of conventional learning environments and digital environments in which AI tools are used.

The principal dimensions of analysis were emotional safety, interest in learning (intrinsic motivation), well-founded trust in technology, and anxiety.

RESULTS: EMOTIONAL FACTORS IN INTERACTIONS WITH AI

The theoretical discussion suggests that understanding primary school pupils’ experiences with AI tools requires consideration of their emotional and psychological states alongside their cognitive capacities.

1. Interest and cognitive stimulation

Play and visual representations are particularly important for primary school pupils. AI-based educational applications and chatbots may stimulate pupils' interest in classroom learning. Vygotsky's discussion of imagination and creativity (Vygotsky, 2004), alongside developmental perspectives (Piaget & Inhelder, 1972), suggests that providing support appropriate to a pupil's capabilities may foster the desire to learn. AI tools can offer rapid responses to questions and opportunities to explore new ideas.

2. Trust and its limits

Pupils' trust in AI should be accompanied by critical judgement. Some younger pupils may accept AI-generated information as accurate without checking it. Teachers should therefore help pupils understand that “AI can also make mistakes” and encourage independent thinking and verification of information using other sources.

3. Anxiety and psychological barriers

When using technology, some pupils may experience anxious thoughts such as “I will not be able to understand this” or “It will be embarrassing if I make a mistake on the computer.” In classrooms that provide insufficient emotional support, such anxiety may negatively affect creative engagement. Teachers should explain that mistakes are a natural part of learning and help pupils manage their anxiety.

DISCUSSION: SUPPORTING EMOTIONAL BALANCE WHEN USING AI

Drawing on pedagogical accounts of teaching practice and innovation (Tolipov & Usmonboyeva, 2006; Azizxo'jayeva, 2006; Ishmuhamedov et al., 2008), and on general perspectives on creativity (Amabile, 1996), the following strategies are proposed to support pupils' emotional experiences when interacting with AI. Their effectiveness in AI-assisted primary education requires further empirical evaluation:

Open-ended questions. Use AI to present tasks with multiple possible solutions and encourage pupils to express diverse perspectives.

Brainstorming. Collect initial ideas generated with the help of AI without immediately evaluating them, and discuss them openly with pupils.

Problem-based situations. Rather than supplying ready-made answers, use AI tools to develop scenarios that encourage pupils to investigate problems independently.

An emotionally safe classroom environment. When pupils make mistakes, foster a classroom culture that encourages learning from errors instead of responding with harsh criticism.

CONCLUSION AND PRACTICAL RECOMMENDATIONS

This conceptual discussion suggests that primary school pupils' interactions with AI involve more than the acquisition of technical skills; they also encompass emotional and psychological dimensions. Interest is an important driver of learning, while well-founded trust and emotional safety support this process.

In primary school lessons involving AI, teachers should act not only as organisers of learning but also as facilitators who observe and support pupils' emotional well-being.

To prevent both excessive reliance on AI tools and fear of using them, critical thinking should be developed from an early age alongside digital literacy.

It is also advisable to implement pedagogical and psychological approaches that protect children's personal boundaries and psychological safety in digital environments.

Limitations. This article is a theoretical and analytical discussion, not an intervention study. It does not report a sample, a controlled experiment, or quantitative measures of pupils' interest, trust,

or anxiety. Its recommendations should therefore be interpreted as pedagogical proposals requiring empirical evaluation.

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