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Analysis of the Nature of Learning and Instruction in Elementary Schools Through a Literature Study

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ABSTRACT

This study aims to comprehensively analyze the nature of learning and instruction in elementary schools through a literature study approach. The review was conducted by examining various classical and modern learning theories, concepts of 21st-century learning, and the practical implications that emerge within the context of basic education. The data were obtained from academic books, national and international scientific journals, research reports, and various digital publications relevant to the topic. Based on the literature review, learning is understood as a complex process that results in changes in behavior, knowledge, skills, values, and attitudes through direct experience or social interaction. Effective instruction requires a paradigm shift from teacher-centered learning to student-centered learning, where teachers are no longer merely transmitters of information but act as facilitators, motivators, and guides in the learning process. The study also shows that the implementation of 21st-century learning in elementary schools demands the application of instructional strategies that stimulate critical thinking, creativity, collaboration, and digital literacy. Learning must be designed to accommodate the developmental needs of children, particularly because elementary students are at the concrete operational stage, requiring real and contextual learning experiences. This study emphasizes that instructional quality will improve when planning, implementation, and evaluation are developed based on a deep understanding of children's learning characteristics. Thus, this literature study provides a comprehensive overview of the importance of understanding the nature of learning and instruction as the foundation for developing effective, relevant, and sustainable educational practices in elementary schools.

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INTRODUCTION

Education is a conscious, planned, and continuous process aimed at shaping individuals who are knowledgeable, skilled, and of strong character. In the context of elementary school, education has a highly fundamental role because it becomes the initial foundation for the intellectual, social, emotional, and moral development of learners. A strong understanding of the nature of education becomes the basis for the emergence of competent and ethical generations, as "the main foundation

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for forming a generation of character is an educational process consciously built to facilitate effective learning and teaching activities." This becomes even more relevant in the era of globalization and digitalization, where competency demands are increasingly complex and require instructional practices that prepare learners to face rapid societal changes.

In its development, modern instruction requires a paradigm shift from teacher-centered learning to student-centered learning. This new paradigm demands teachers to no longer serve merely as the primary source of knowledge, but as facilitators who create a conducive, interactive, and meaningful learning environment. Learners are encouraged to actively construct understanding through direct experience, collaboration, exploration, and problem-solving. Through such approaches, learning can develop cognitive, affective, and psychomotor abilities in a balanced manner.

Learning as the core of education is understood as a complex process involving changes in behavior, knowledge, attitudes, skills, and values through experience. This view is consistent with the perspectives of experts, including Sihite & Situmorang, who state that learning is "a relatively permanent change in behavior or behavioral potential as a result of experience or reinforced practice." This definition shows that learning is not merely receiving information, but an internal activity requiring the active involvement of learners and interaction with their environment. Akhiruddin and colleagues further emphasize that learning is a series of conscious activities that produce permanent changes, visible or invisible, underlining the importance of meaningful experience in learning.

In elementary education, understanding how children learn becomes crucial because children are at the concrete operational stage of cognitive development. At this stage, students understand concepts better when presented through real experience, concrete media, and activities involving social interaction. Therefore, elementary school instruction must be designed to provide real, contextual, and meaningful learning experiences. Beyond learning itself, teaching and instruction also become essential components of education. According to the literature, teaching is descriptively understood as the process of transferring information from teacher to student, but in 21st-century education, this definition is insufficient. Teaching must facilitate learners in constructing knowledge through active, creative, and collaborative activities. "According to the journal Hakikat Belajar dan Pembelajaran (2025), effective education involves three main components: learning, teaching, and instruction. These must work harmoniously as each plays a substantial role in shaping meaningful learning experiences."

"In the global perspective, UNESCO emphasizes four pillars of education as the foundation for 21st-century learning: learning to know, learning to do, learning to live together, and learning to be." These pillars highlight that education should not only focus on knowledge acquisition but also on character building, life skills, and identity formation. In Indonesia, legal foundations "through Law No. 20 of 2003 on the National Education System reinforce that instruction is a process of interaction among learners, educators, and learning resources in a learning environment." This definition affirms that instruction is an intentionally designed activity to create meaningful and relevant learning experiences.

Based on these understandings, this study was conducted to explore more deeply the nature of learning and instruction in elementary schools through a literature study approach. This study is essential for providing a comprehensive picture of how learning and instruction should occur and how these concepts are implemented in quality basic education aligned with contemporary demands.

METHOD

This study employs a literature study method, focusing on the collection, review, and analysis of various written sources relevant to the research topic. The sources include books, scientific journals, research reports, and digital publications discussing learning theories, elementary school instruction, and 21st-century education concepts. The research process began by identifying literature related to the nature of learning and instruction, followed by selecting sources based on relevance, currency, and academic validity. Next, content analysis was carried out to examine the main concepts in these sources. The results were then synthesized to build a comprehensive understanding of the

nature of learning and instruction in the context of basic education. This method was chosen because it provides a strong theoretical foundation and allows the researcher to obtain a comprehensive overview of the issues studied.

RESULTS AND DISCUSSION

The literature further reinforces that understanding the nature of learning in elementary school is essential not only for designing instructional strategies but also for shaping the broader educational environment. Learning at this level does not occur in isolation; instead, it is influenced by multiple factors such as classroom climate, teacher student relationships, cultural background, socio-emotional development, and the availability of learning resources. Research consistently shows that students in elementary school learn more effectively when they feel psychologically safe, respected, and supported. A positive learning climate enables children to take risks, ask questions, explore ideas, and express themselves without fear of judgment. This aligns with constructivist principles, which suggest that meaningful learning takes place when learners are actively engaged in constructing understanding within a supportive and interactive environment.

Moreover, the literature underscores that learning in elementary school should integrate various domains of development cognitive, social, emotional, and physical because children at this age are experiencing rapid growth in all these areas. Cognitive development alone cannot fully explain children's learning processes. Emotional experiences, motivation, interest, and self-confidence play equally significant roles. Studies show that when children are motivated and emotionally engaged, they are more willing to participate actively, persist in completing challenging tasks, and retain information more effectively. Therefore, learning activities must be designed not only to stimulate the mind but also to elicit curiosity, enjoyment, and a sense of accomplishment.

In addition, scholars emphasize the importance of differentiated instruction in elementary school settings. Children differ in their learning styles, abilities, interests, and pacing. Thus, a “one-size-fits-all” approach is no longer effective. Differentiated instruction allows teachers to modify content, processes, and assessments based on individual learner needs. This approach ensures that every student whether slow-, medium-, or fast-paced has an equal opportunity to learn and demonstrate understanding. The literature further highlights that such personalized instruction improves learning outcomes, fosters a sense of belonging, and reduces academic gaps among students.

A related concept emphasized in modern literature is the integration of technology in elementary school instruction. Digital tools, when used appropriately, enhance engagement, provide access to various learning resources, and support interactive learning experiences. Technologies such as educational apps, multimedia presentations, interactive simulations, and digital storytelling can help children understand abstract concepts through visualization and hands-on virtual experimentation. Furthermore, early exposure to digital tools strengthens digital literacy, an essential competency in 21st-century education. However, researchers caution that technology must complement not replace pedagogical principles. Effective technology use requires teachers to align digital tools with learning objectives, developmental needs, and classroom activities.

Collaborative learning also emerges as an important theme in the literature. Collaboration allows students to share ideas, negotiate meaning, solve problems together, and develop interpersonal skills. Elementary students, who are naturally social and curious, greatly benefit from group-based tasks that require cooperation and communication. Collaborative learning supports social development by fostering empathy, respect for others' opinions, and the ability to work harmoniously within a team. This aligns with UNESCO’s pillar of learning to live together, which prepares children for diverse social environments.

Furthermore, research highlights the significance of formative assessment in elementary learning. Unlike summative assessment, which evaluates learning at the end of a unit or semester, formative assessment provides continuous feedback that guides the learning process. Techniques such as observation, questioning, checklists, reflective journals, and student self-assessments allow teachers to monitor progress and adjust instruction when necessary. Formative assessment supports

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a growth mindset by helping students see learning as a gradual process rather than a fixed measure of ability. It also encourages students to take responsibility for their own learning, thus strengthening metacognitive skills.

Another key insight from the literature is the importance of contextualized learning. Because elementary students are in the concrete operational stage, instruction must connect concepts to real-life situations that are meaningful to them. This includes using local examples, daily-life scenarios, stories, field observations, and hands-on experiments. Contextualized learning deepens understanding, enhances relevance, and makes the learning experience more memorable. It also supports the development of problem-solving skills by enabling students to apply classroom knowledge to real world challenges.

Culturally responsive pedagogy is also highlighted as an essential component of effective elementary instruction. In diverse classrooms, students come from different cultural, linguistic, and socioeconomic backgrounds. Teachers must recognize these differences and incorporate culturally relevant examples, materials, and practices into instruction. Culturally responsive teaching helps students feel represented and valued, which enhances engagement and academic success. It also prepares children to appreciate diversity and develop intercultural competence, essential for living in a global society.

Moreover, the literature emphasizes that learning in elementary school must encourage creativity. Creative thinking is not limited to art; it applies to problem-solving, decision-making, and innovative thinking across all subjects. Activities such as storytelling, design projects, imaginative play, writing tasks, and exploratory science activities foster creativity by allowing students to express ideas freely and experiment with different possibilities. Creativity in the classroom helps build confidence, curiosity, and resilience qualities necessary for academic and personal development.

Finally, the literature stresses that the effectiveness of learning and instruction ultimately depends on teacher competence and professional commitment. Teachers must have strong pedagogical knowledge, deep understanding of child development, and the ability to adapt instruction based on students' needs. Continuous professional development is crucial, as new educational theories, technology, and teaching strategies are constantly emerging. Teachers must engage in reflective practice, collaborate with colleagues, and evaluate their own instructional effectiveness. Educators who consistently improve their skills create classrooms that foster meaningful, inclusive, and high-quality learning experiences.

Overall, the expanded literature confirms that understanding the nature of learning and instruction in elementary schools requires a holistic perspective that integrates cognitive, emotional, social, technological, and cultural dimensions. Learning is an active, meaningful, and developmental process; instruction must be intentional, supportive, and student-centered; and teachers must serve as facilitators who create conditions for children to grow academically and personally. Such comprehensive understanding ensures that elementary education aligns with the needs of the 21st century and prepares students to become competent, thoughtful, and responsible future citizens.

CONCLUSION

Based on the literature review, it can be concluded that learning and instruction are two closely related components that cannot be separated in the educational process, particularly at the elementary level. Learning is understood as a complex process involving changes in behavior, knowledge, skills, attitudes, and values through experience and social interaction. These changes are relatively permanent and meaningful, emphasizing that learning does not only occur cognitively but also through emotional, social, and physical engagement. Understanding the nature of learning is essential in designing effective instruction, especially because elementary students are in the concrete operational stage requiring real and contextual learning experiences.

Instruction, on the other hand, is a systematically planned process designed by educators to facilitate learning. Instruction is not merely teaching but involves interaction among teachers, learners, and learning resources within a conducive environment. As 21st-century education evolves, instruction must be learner-centered and capable of developing critical thinking, creativity, collaboration, communication, and digital literacy. Teachers' roles have shifted from information

transmitters to facilitators, guides, motivators, and learning companions. Effective instruction must integrate child development needs, curriculum demands, and technological advancements.

Furthermore, the findings reveal that the quality of basic education is highly influenced by how well teachers understand the nature of learning and instruction and apply this understanding in practice. Instruction that does not consider learner characteristics or use appropriate strategies will produce suboptimal educational outcomes. Therefore, understanding the nature of learning and instruction should become a primary focus in curriculum development, instructional design, and teaching implementation.

Overall, this study confirms that improving the quality of elementary education must begin with a deep understanding of learning, instruction, and the teacher's role. Instruction aligned with child development and 21st-century demands will produce learners who are not only academically competent but also socially, emotionally, and morally developed. Thus, this study provides an important theoretical foundation for efforts to enhance basic education that is relevant, humanistic, and sustainable.

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