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FOSTERING CREATIVE THINKING IN PRIMARY SCHOOL STUDENTS THROUGH PROBLEM-BASED SITUATIONS

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Abstract:
This article investigates theoretical and practical approaches to the development of creative thinking among primary school children by utilizing problem-based learning situations. The article analyzes the philosophical and psychological fundamentals of creativity, highlights effective teaching strategies from international and local perspectives, and discusses challenges faced in classroom settings. It also offers guidance on designing and implementing creative, problem-based tasks in the curriculum, and provides recommendations for assessment and teacher support. This comprehensive study serves as a practical guideline for educators striving to nurture creative skills in young learners, outlining both the promise and complexity of such work.

Keywords:
creative thinking, primary education, problem-based learning, cognitive development, student motivation, teaching strategies, assessment.

INTRODUCTION

The necessity for creative thinking in modern education systems is rising to unprecedented levels, as society and technology progress and the demand for inventive, adaptable individuals grows stronger. Creativity, the ability to generate new and valuable ideas, is now acknowledged as one of the cardinal skills required for personal success and national innovation. The seeds of this vital competence are best sown in primary education, when children's minds are receptive, flexible, and naturally curious. As such, the development of creative thinking through purposeful use of problem-based situations is a primary concern in the formation of future-ready generations. Problem-based learning goes beyond knowledge transmission; it puts children in the heart of authentic, complex situations that demand investigation, dialogue, and divergent thought. The teacher’s role shifts from being an instructor to a facilitator, guiding discovery and supporting original expression. The following explores the foundational theories behind creativity, practical strategies for classroom integration, and the manifold benefits and challenges of implementing such pedagogy with young students.

MATERIALS AND METHODS

Creative thinking encompasses a suite of advanced mental processes: the ability to think divergently, generate multiple solutions, flexibly change approaches, and reconsider problems from various viewpoints. Torrance, a leading creativity theorist (Torrance, 2008, Creative Education

Foundation Press), described it as a process of sensing gaps or missing elements, forming hypotheses, testing, revising, and communicating results. At its core, creativity in children is an interplay between imagination, goal-directed activity, and the environment that supports risk-taking and experimentation. Cognitive psychologists like Vygotsky and Guilford emphasized the key role of social interaction and cultural context in nurturing thinking skills. Creative thinking is not a luxury; it is crucial for navigating daily life. Whether resolving conflicts, making decisions, or approaching new learning material, students with honed creative faculties can adapt, innovate, and thrive. Embedding creativity early on fosters resilience, curiosity, and a lasting love of discovery—qualities essential for the future workforce and citizenry [1].

Problem-based learning situates students in scenarios that mirror real-life ambiguity and complexity. Rather than receiving information and obeying procedures, children must identify what the problem is, generate hypotheses about possible solutions, test their ideas, and reflect on outcomes. The hallmark of problem-based tasks is their open-endedness; often, multiple solutions are possible, and the process of arriving at an answer is as important as the answer itself. For primary school students, developmentally appropriate problem-based scenarios might involve stories, games, simulations of community challenges, or artistic assignments that require invention. For example, a class may be asked how to improve playground safety, design a device that helps someone in need, or create a story from illustrated prompts. These situations require observation, active questioning, collaboration, and, most importantly, the courage to try untested ideas. The power of such activities stems from engagement—they pique students' intrinsic motivation. When a child is genuinely interested in a problem, the mind becomes more agile and receptive to creativity. Studies also highlight the social nature of problem-solving; by discussing, arguing, and constructing jointly with peers, each student's reservoir of ideas grows and diversifies [2].

RESULTS AND DISCUSSIONS

To maximize the effectiveness of problem-based pedagogy in developing creativity, certain principles must be followed in the classroom environment. First and foremost, the classroom should be a psychologically safe space. Students need to know that original ideas—even wild, unorthodox ones—are valued, and that failure is an invitation for further learning rather than a reason for embarrassment. Teachers encourage this culture when they provide constructive feedback, celebrate effort, and highlight the process of trying as much as the final solution. Secondly, teachers must employ questioning techniques that open mental doors rather than close them. Instead of asking "what is the answer?" the teacher might ask "what are all the possible answers?" or "how else might we look at this situation?" Open-ended prompts, such as designing, predicting, inventing, combining, and evaluating, guide children toward more creative responses. Thirdly, group work and discussion are essential. Creativity does not flourish in isolation—it requires exchange, collaboration, and competition of ideas. Through shared tasks, students learn to listen, adapt, negotiate, and incorporate different perspectives, all of which are invaluable skills in both academic and personal contexts [3].

Integration of lessons is another potent strategy. Creativity is most visible when children can connect ideas across disciplines, blending skills from science, mathematics, language, and the arts. Cross-curricular projects, such as building a community garden (science and social studies), planning a class celebration (mathematics and literature), or writing plays (language and art), invite richer, more original thought processes. Finally, teachers must themselves model creative attitudes. By thinking aloud, considering unusual alternatives, and accepting uncertainty, they demonstrate the habits of mind that nurture creative growth. The teacher's openness, curiosity, and humility become a template for the same qualities in students.

A variety of practical activities can be employed to stimulate creative thinking in young students. For instance, in science lessons, children might be asked why certain plants grow better in some places rather than others, then design experiments to test their ideas. In mathematics, a teacher might present a scenario with too much or too little information and challenge students to decide what's needed and how to make sense of ambiguities. In language classes, "story seeds"—a set of unrelated pictures or words—can be used to inspire completely new stories. In art, students could be invited to create sculptures using recyclable materials, challenging them to see ordinary objects in unfamiliar ways. Even simple daily routines, such as choosing classroom jobs or rearranging the seating plan, can be framed as creative problems requiring joint decision-making and imaginative compromise. A successful creative classroom will be filled with displays of students' unique creations, evidence of brainstorming sessions, and artifacts from collaborative work. The environment itself reflects the ethos that creativity is not only allowed, but central to school life [4].

Despite widespread agreement on its value, the actual cultivation of creativity in primary education encounters several obstacles. Rigid and overfilled curricula often crowd out opportunities for open-ended inquiry. High-stakes assessment systems may inadvertently incentivize conformity and rote learning, causing both teachers and students to avoid risk-taking. Furthermore, some cultures equate mistakes with failure rather than necessary steps in the creative process, thus stifling the experimentation essential for creative growth. Teacher preparedness is another concern. Many educators have little experience or training in guiding creative inquiry or facilitating group dynamics. They may feel constrained by administrative demands for compliance and measurable outcomes. Providing ongoing professional development and fostering a school culture that rewards innovation (not just correct answers) is crucial if problem-based creative pedagogy is to take root. Political and social factors, too, may shape the extent to which creativity is valued and supported. Societies that prioritize collective harmony or reverence for tradition sometimes discourage creative deviation. Yet, even within such contexts, it is possible for inspired teachers to carve out niches of creative play and inquiry.

Effective development of creative thinking depends largely on the mindset and skillset of teachers. Inspirational teachers are able to recognize creative potential in every student, design flexible curricula, and seize teachable moments for divergent thinking. They view discipline as an enabling structure, not a straitjacket, and see every question as an opportunity for co-investigation. Educational leaders must also support teachers through encouragement, resource allocation, and visionary planning. Administrators should foster school cultures where experimentation is rewarded, mistakes are valued for learning, and innovation is seen as a shared duty [5].

Supporting initiatives such as teacher collaborations on cross-curricular projects, regular professional learning communities, and engagement with international research can all further the cause. Moreover, giving students voice and choice within the curriculum deepens their sense of ownership and increases their willingness to take creative risks. Around the world, educational systems in countries including Finland, Singapore, and New Zealand have made creativity and problem-based learning central to their primary curricula. Finnish schools, for example, organize learning around projects that are thematic, student-driven, and rooted in community relevance. Singaporean educators place high value on questioning and collaborative research work, ensuring that students are challenged at their readiness level and encouraged to think flexibly. Lessons can also be drawn from project-based schools in the United States and progressive education movements globally. What unites these systems is respect for the wisdom and resourcefulness of

children, trust in teacher professionalism, and a willingness to rethink traditional content when necessary.

Conclusion:

The path to nurturing creative thinking in primary school students through problem-based situations is at once challenging and deeply rewarding. Creativity is not reserved for artistic geniuses or rare prodigies; it is a universal human capacity lying dormant in every child. By designing open-ended, meaningful problems, fostering safe and supportive classroom climates, employing dynamic questioning, and encouraging collaboration, teachers can guide every student toward the development of creative habits. The creative classroom is an evolving community, one where both questions and answers are valued, and where process is as important as product. Ongoing teacher development, school leadership, and supportive policies are essential for realizing this vision. As society continues to evolve, the cultivation of creative thinkers from an early age remains one of the highest and noblest ambitions of education.

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