EURASIAN EXPERIMENT JOURNAL OF HUMANITIES AND SOCIAL SCIENCES (EEJHSS) ISSN: 2992-4111

©EEJHSS Publications Volume 7 Issue 2 2025

Creative Problem-Solving in School Management

Asiimwe Aisha

Department of Public Administration and Management Kampala International University Uganda

ABSTRACT

In the rapidly evolving landscape of education, creative problem-solving (CPS) has become a vital competency for effective school management. This paper examines how educators and administrators employ CPS strategies to address multifaceted challenges within schools, from individualized student learning needs to systemic organizational reforms. By synthesizing theoretical models, empirical research, and real-world case studies, the study highlights the essential role of creativity in leadership, collaborative decision-making, and operational efficiency. It further examines the influence of technology, resistance to change, and the importance of fostering a creative mindset among staff. Through practical frameworks and evidence-based techniques, this paper provides actionable insights into implementing sustainable changes that enhance educational outcomes. Ultimately, it positions CPS not only as a tool for navigating complexity but as a catalyst for innovation and cultural transformation within educational systems.

Keywords: Creative Problem-Solving, School Management, Educational Leadership, Innovation in Education, Change Management, Collaborative Decision-Making, Educational Reform.

INTRODUCTION

Here and now is a crucial time for educators. A teacher must focus on their students, understanding their needs, misunderstandings, and how to reach everyone effectively. To tackle these challenges, educators engage in a creative problem-solving process, managing information, their environment, and the students themselves. Enhancing creative problem-solving skills enables teachers to be better managers of student learning. Educators enter the profession for various reasons, such as a love for children, a desire to create meaning, and to facilitate learning. Learning is complex and not yet fully understood by research, which adds to the nobility of teaching. Today, high-stakes materials and tests have diminished the philosophical aspects of teaching, often reducing it to merely good classroom management. However, effective management encompasses creative problem solving, addressing individual student needs for varying approaches to learning. It involves visual awareness of classroom activities and auditory perception of student interactions, along with attention to environmental factors affecting students. Good management includes being present among students, offering support, adjusting the classroom dynamics, and maintaining respect during students' nervous moments while demonstrating confidence and enthusiasm in the learning process. School administrators now undergo rigorous selection processes for content knowledge and management skills. Research has shown that educators can be taught creative problem-solving techniques effectively. Yet, a meta-analysis found that only one study assessed the training's effectiveness specifically for school administrators. Among 16 studies on the professional development of educators in creative problem solving, officials reported strong content knowledge backgrounds [1, 2].

Importance of Creative Problem-Solving in Education

A creative problem-solving approach in education allows stakeholders to collaboratively address longstanding challenges. Given the complex environments of modern education, a broader perspective is essential. The emphasis on quality, knowledge, and culture in today's intelligent organizations necessitates new frameworks for thought and action. The creative potential in school management is significant, as illustrated by in-depth case studies that align with key research questions regarding change processes. The urgency for educational improvement in a globalized context, where knowledge and

culture are critical, cannot be ignored. While opportunities for school enhancement exist, they remain largely untapped, affecting students and teachers alike. There is a pressing need for improved and more comprehensive performance indicators, yet it is still uncertain what school boards seek regarding enhancements in quality, knowledge, and culture. Extensive discussions often yield no clear outcomes, as educational stakeholders tend to focus narrowly on their specific interests, allowing essential performance measurement issues to be overlooked [3, 4].

The Role of School Leaders

The leadership role of school education reformers has been studied in various forms, including strategic planning and coalition building. A Good Change Model for School Leaders was developed based on recent findings. Schools are identified as change units, as they form the core of educational systems, proving to be the best points for research-based interventions. Factors influencing school groups include attributes, composition, maturity, task, members' personalities, and the environment, all vital when designing groups to act as change agents. This approach diverges from traditional leadership in the UK context, emphasizing deliberate thinking for tackling important issues. The Good Change Model framework emerged from an understanding of factors affecting social systems and recognizes that the internal movement can respond to external changes. The previous successes and failures in school change efforts influence the group's willingness to engage in new initiatives. The model aims to be practical and user-friendly, providing a step-by-step guide for educational stakeholders to enhance practices in schools. Establishing formal collaboration through TDP is preferred over informal cooperation, promoting effective research-based partnerships in British education [5, 6].

Identifying Problems in School Management

People must cope with flooding urban populations, leading to concerns about developing governing systems and their capabilities. An urban area is a large societal system that tries to meet conflicting requirements through complex interactions. It should be seen as an artificial system of individuals with competing agendas. When modeling urban areas, it's essential to accurately represent the governing systems and their improvements. Models usually focus on variables found in urban modeling, providing an updated representation of governing systems that enables sensitivity analysis and helps improve urban operations. Planners typically build models around the physical transportation system to forecast traffic, but here, the emphasis is on governing systems and conflict resolution, translating these into decisions to address inefficiencies within transportation frameworks. The goal extends beyond enhancing system capacity to creating interventions that promote better decision-making and understanding of outcomes alongside infrastructure enhancements. Generalizations and intervening variables can lead to more sophisticated models, like transferring matrices and coercion domains. The functions of urban transition capacity include transport mode usage and travel time as variables affecting city productivity. Alternative approaches from macro modeling are gaining traction, but do not replace conventional meso approaches. City models incorporate various transport modes like subways and buses, along with transport equilibrium models. The viability and robustness of urban public networks can be quantified using worth and information theory by analyzing transport and land use patterns from satellite images, governed by a filtering equilibrium model [7, 8].

Techniques For Creative Problem-Solving

The inability to think creatively can affect various individuals, including quick lookers who grasp similarities quickly and thorough lookers who delve deeper into details. To assist both types in defining problems, presenting simple examples instead of complex scenarios may boost creativity. In 2018, a method was applied to engineering graduate students during 10-minute classes, beginning with a lecture on brainstorming techniques. Groups were assigned a short case and tasked to generate solutions in 50 minutes using standard brainstorming methods, resulting in more ideas than anticipated. A second session featured a different case where students drew something from nature in one minute; over 90% of 60 drawings depicted trees, unexpectedly limiting variety despite the diverse backgrounds of the students. The next method observed environmental impacts on brainstorming in a lab with fixed desk seating, which followed a traditional classroom set-up that restricted creativity. Students could not see others' ideas, negatively affecting brainstorming effectiveness. Moreover, formulating questions acted as simple stimuli, guiding student responses. In another approach, groups faced forty questions to answer within five minutes. Most struggled as they focused on only deeper answers, missing opportunities for non-standard responses. Encouragement needs to come in waves, since brainstorming can falter without good ideas. Observations indicated that creatively reframing ordinary ideas could lead to radical new

thoughts. For example, discussing truck safety measures led to conventional ideas, but introducing a whimsical concept of a low-flying truck transformed the session, sparking innovative contributions such as cartoons of explosive mines, enhancing creativity significantly [9, 10].

Implementing Solutions

Modifying the organizational structure of the local school system will not change the personality of the jointly operated schools. Each principal, each local school board member, and each community member must understand the need for the change. A major reassessment of management and operational processes will be required if the submission of the facilities plan and approval by the state is successful. Vast and systematic changes must occur in the management of the school systems if the remedy for decades of neglect in facility maintenance is a success. Consideration for adjustment must begin at the grassroots level: with an examination of the operating methods of the field transportation operation and then progressing upward and into the larger buses and garages. A proactive approach is needed to assess the validity of existing policies, procedures, mechanisms, and operational standards at the first level of administration. The process must crawl before it walks. Over time, valid organizational structures, processes, and procedures may evolve. Each need must elicit a response from an actionable source. Whether the response is functional or dysfunctional is not the first question. Efforts must focus on broad regulatory authorities first. If dysfunctional responses emerge and institutional interests are experienced or perceived to be threatened, the aim of the majority of time and attention may need to be redirected immediately to the attention of powers vested with substantial authority. Charter, bylaw, and organizational requirements must be scrutinized thoroughly to discover traps and snares intentionally or inadvertently placed in the feed of the operating departments and processes. Every facet of the operation must be assessed for vulnerabilities. Individuals and organizations frequently make adjustments with little knowledge or understanding of the effects of the adjustments they initiate or endorse [11, 12].

Case Studies of Successful Problem-Solving

The model presented is generic and can be applied to similar issues in schools. Most quality assurance programs rely on organizations conducting self-evaluations and creating reports detailing answers to specific criteria. However, academic staff usually focus more on compliance than on the evaluation process itself or on addressing major issues. The following outlines approaches and steps for developing frameworks and procedures for self-evaluation. While experienced staff may find some steps trivial, they are beneficial for organizations struggling with efficiency and understanding of evaluation activities. Effective management of organizations is crucial for achieving set objectives. Many issues must be addressed to foster a suitable culture, framework, and procedures, such as determining who provides inputs, the level of detail needed, and how to present findings. Very few staff are engaged with these questions, leading to frustration as workload often falls on a handful of individuals. Mismanagement is prevalent; often, poorly informed staff do not guide one another. To improve this, implicit knowledge can be made explicit through a structured course that various parties in different programs can understand and implement [13, 14].

Overcoming Resistance to Change

Scholars identify up to eight reasons for management resistance: direct impact on jobs or status, concerns about reassignment or loss of seniority, dislike of new technologies or processes, failure to understand or perceive these as less effective, unclear objectives, and belief that new policies are unnecessary. While decision-makers often weigh the pros and cons of options, some, like visionaries, prioritize creativity over analysis. Effective decision-making requires a balance between both, establishing processes that screen options while favoring imaginative solutions initially. Decision-makers should generate proposals rather than merely analyze them; however, many spend little time on this, often doubting the feasibility of new ideas, thinking nothing fundamental can change. A successful management team includes "nonaggressive" managers who refine creative proposals into viable plans, distinct from those who present numbers and potential upsides. Their interpretations of favorable results are usually pessimistic, and new ideas often face skepticism rather than constructive questions. Additionally, an overwhelming number of parameters can complicate assessments. Dreamers can frustrate analysts, but even subpar creative efforts can inspire useful thought processes [15, 16].

The Impact of Technology on Problem-Solving

The invention of the computer has significantly impacted problem-solving, with computers excelling in tasks that some humans cannot. As technology advances, computers are increasingly positioned as essential tools in workplaces, leading to a shift from human effort to computer effort. Many jobs,

particularly in high-volume or high-stakes fields, are expected to be automated in the next twenty years, raising concerns for educators and parents regarding the rise of computerized education. This trend emphasizes IT over human interaction, as traditional teaching methods, like lectures, gradually decline. While some innovative computerized education methods, such as promoting tolerance, exist, many educators worry about the reduction of diverse teaching styles to a single computer-based model. This shift risks stripping education of its essence, fostering a robotic approach to learning, displacing caring educators with bureaucratic machines, and reducing creativity and spontaneity in teaching [17, 18].

Fostering A Creative Mindset Among Staff

The environmental challenges facing humanity, including global warming, resource overconsumption, population growth, and biodiversity loss, are immense and complex due to interconnections among these issues and human systems. While there are potential solutions, little has been effectively implemented due to prevailing human attitudes prioritizing short-term military and economic interests over necessary changes. Long-term educational efforts aim to cultivate critical thinking, values, skills, and behaviors in children, but few can develop and implement multi-faceted solutions tailored to their contexts. There is a pressing need for adaptable thinkers to explore diverse solutions for humanity's survival in a rapidly changing world. Creativity, which knows no boundaries or limits regarding individual traits, is key. Every human has creative potential, particularly children, but this potential can diminish after early childhood. To foster creative thinking, three key criteria must be met: providing a supportive environment, nurturing curiosity, and evoking well-reserved curiosity. Creative thinking is essential for addressing complex problems in decision-making within schools. Recently, comprehensive training focused on analytical discussions at various educational levels has been executed effectively. Innovative techniques like wavelength, thoughtful writing, mind-mapping, and multimedia sharing were explored. Teachers conducted engaging workshops, and rapid dissemination is anticipated. Increased collaboration is expected, with participants initially eager to explore formal themes like learner-centered thinking but later reflecting on how to incorporate fun in the process. Some recurring themes in proposals were both limiting and promising, revealing that while too many simple expectations might warm ideas, they could also hinder the development of more profound concepts [19, 20].

Engaging Students in Problem-Solving

Through discussions or in a whole-class setting, students engage in group problem solving. The teacher must attentively listen to understand the students' grasp of the problem. A group setting fosters various perspectives on an issue. Collaborative problem-solving and discussions enhance students' thinking skills while allowing them to communicate effectively. Peers' listening promotes reasoning, and students might explore previously unconsidered strategies. Scaffolding is crucial, as students require different levels of assistance based on the problem. The teacher's choice of problems is vital, guiding students' approaches if needed. Pair work can help students articulate their thought processes or develop strategies. If the problem is familiar, pairs may quickly create plans, but if it's new, one student might explain the problem during think time. If a new strategy is introduced, the second student may need more time and prompting. Debates on various solving methods can arise, and whole-group discussions are useful for guiding students toward effective problem setups and strategies. Initially, groups facilitate understanding, and the teacher can then assess whether to continue as a whole class or allow individual work. As discussions unfold, the teacher organizes strategies for a comprehensive final discussion [21, 22].

Evaluating The Effectiveness of Solutions

The first step in assessing a solution's success is to specify criteria for evaluation. For instance, in school budgeting, an accountant reviewed accounts, coded invoices, and approved payments. Weekly statistics on invoice timeliness and inquiries were collected, and reports circulated among staff, highlighting both successes and areas needing improvement. Decision-makers must understand how to apply these criteria; recreational input can clarify preferences but often leads to more nuanced effects. Program evaluations usually rely on consensus, making it unclear whether a district prefers a high rating or seeks detailed analysis. The evaluator's examples may divert from the original intent. It's crucial for local decision-makers, such as principals and superintendents, to establish criteria like "feasibility," "cost-effectiveness," and "return on investment." Rigid, predetermined criteria can stifle creativity, whereas unconventional ideas can inspire innovative solutions. Assessing effectiveness involves more complexity than a simple yes or no, particularly when multiple solutions are present and legacy issues persist. Feedback from stakeholders affected by the problem is essential for evaluating a new solution, like streamlining

borrowing processes. This feedback must be cohesively analyzed to reach an overall conclusion on the solution's implementation [23, 24].

Future Trends in School Management

The future of school management may change drastically, shaped by key trends known as the "seven dilemmas": a shift from concentrated power to decentralized management; the impact of technology shifting focus from politics to bioethics; the evolution from closed to open educational systems; the radical transformation of thinking styles from isolated to collaborative approaches; the move from market-oriented accounting to target-driven budgeting; the transition from a fatalistic style to a cooperative system based on trust; and the call to restore dignity, authority, and moral leadership in education. Each trend influences how the educational system interacts with society, particularly concerning children. Strategic planning in school management will address these dilemmas and guide decision-making over the next decade. The future school landscape will be informed by present realities, aspirations, and values, crafting an image that reflects a hopeful and wide-reaching future [25, 26, 27].

CONCLUSION

Creative problem-solving in school management is not a supplementary skill; it is an essential pillar for fostering dynamic, inclusive, and effective educational environments. As schools face increasing complexity due to diverse student needs, global challenges, and technological advancements, the ability to think creatively becomes indispensable. This paper has shown that creative solutions stem from collaborative efforts, structured methodologies, and the willingness to challenge conventional practices. From leadership models to classroom dynamics, CPS empowers educators and administrators to turn obstacles into opportunities for growth. However, implementing such strategies requires overcoming resistance, rethinking institutional norms, and investing in continuous professional development. By nurturing a culture of creativity and adaptability, schools can evolve into responsive, forward-thinking institutions capable of meeting the demands of the 21st century.

REFERENCES

1. Kartikasari IA, Usodo B. The Effectiveness of Open-Ended Learning and Creative Problem Solving Models to Teach Creative Thinking Skills. Pegem Journal of Education and Instruction. 2022;12(4):29-38.
2. Simanjuntak MP, Hutahaean J, Marpaung N, Ramadhani D. Effectiveness of Problem-Based Learning Combined with Computer Simulation on Students' Problem-Solving and Creative Thinking Skills. International Journal of Instruction. 2021 Jul;14(3):519-34. ed.gov
3. Parnes SJ. Creative problem solving. Developing minds: A resource book for teaching thinking. 1985:230-2.
4. Wang YP. Effects of online problem-solving instruction and identification attitude toward instructional strategies on students' creativity. Frontiers in Psychology. 2021 Oct 14;12:771128.
5. McCarthy AM, Maor D, McConney A, Cavanaugh C. Digital transformation in education: Critical components for leaders of system change. Social sciences & humanities open. 2023 Jan 1;8(1):100479. sciencedirect.com
6. Urbanek P. Institutional logic in a higher education system under reform. Evidence from Polish public universities. International Journal of Leadership in Education. 2025 Mar 4;28(2):233-53.
7. Kavya M, Mathew A, Shekar PR. Short term water demand forecast modelling using artificial intelligence for smart water management. Sustainable Cities and Society. 2023 Aug 1;95:104610.
8. Piadeh F, Behzadian K, Alani AM. A critical review of real-time modelling of flood forecasting in urban drainage systems. Journal of Hydrology. 2022 Apr 1;607:127476.
9. Vizioli R, Kaminski PC. Problem definition as a stimulus to the creative process: Analysis of a classroom exercise. JOTSE: Journal of Technology and Science Education. 2017;7(3):274-90.
10. Graefe AK, Omdal SN. Investing in creativity in students: The long and short (term) of it. InCreativity and Innovation 2022 Mar 14 (pp. 189-208). Routledge.
11. Autor D. The labor market impacts of technological change: From unbridled enthusiasm to qualified optimism to vast uncertainty. National Bureau of Economic Research; 2022 May 30.
12. Bhutoria A. Personalized education and artificial intelligence in the United States, China, and India: A systematic review using a human-in-the-loop model. Computers and Education: Artificial Intelligence. 2022 Jan 1;3:100068.

13. Martínez-Peláez R, Ochoa-Brust A, Rivera S, Félix VG, Ostos R, Brito H, Félix RA, Mena LJ. Role of digital transformation for achieving sustainability: mediated role of stakeholders, key capabilities, and technology. Sustainability. 2023 Jul 19;15(14):11221. mdpi.com
14. Obaideen K, Shehata N, Sayed ET, Abdelkareem MA, Mahmoud MS, Olabi AG. The role of wastewater treatment in achieving sustainable development goals (SDGs) and sustainability guideline. Energy Nexus. 2022 Sep 1;7:100112. sciencedirect.com
15. Smith V. Managing in the corporate interest: Control and resistance in an American bank. Univ of California Press; 2023 Apr 28.
16. Rosenberg B. "Whatever it is, I'm against it": Resistance to change in higher education. Harvard Education Press; 2023 Sep 14.
17. Ivaldi S, Scaratti G, Fregnan E. Dwelling within the fourth industrial revolution: organizational learning for new competences, processes and work cultures. Journal of Workplace Learning. 2022 Jan 10;34(1):1-26.
18. Oosthuizen RM. The fourth industrial revolution–smart technology, artificial intelligence, robotics and algorithms: Industrial psychologists in future workplaces. Frontiers in artificial intelligence. 2022 Jul 6;5:913168.
19. Ogenyi FC, Eze VH, Ugwu CN. Navigating Challenges and Maximizing Benefits in the Integration of Information and Communication Technology in African Primary Schools. International Journal of Humanities, Management and Social Science (IJ-HuMaSS). 2023 Dec 20;6(2):101-8.
20. Halpern DF, Dunn DS. Critical thinking: A model of intelligence for solving real-world problems. Journal of Intelligence. 2021 Apr 7;9(2):22.
21. Rahmawati Y, Taylor E, Taylor PC, Ridwan A, Mardiah A. Students' engagement in education as sustainability: implementing an ethical dilemma-STEAM teaching model in chemistry learning. Sustainability. 2022 Mar 17;14(6):3554. mdpi.com
22. Sakshaug LE, Wohlhuter KA. Journey toward teaching mathematics through problem solving. School science and mathematics. 2010 Dec;110(8):397-409.
23. Roth WM, McGinn MK. Toward a new perspective on problem solving. Canadian Journal of Education/Revue canadienne de l'education. 1997 Jan 1:18-32.
24. Buda A, de Place Hansen EJ, Rieser A, Giancola E, Pracchi VN, Mauri S, Marincioni V, Gori V, Fouseki K, Polo López CS, Lo Faro A. Conservation-compatible retrofit solutions in historic buildings: An integrated approach. Sustainability. 2021 Mar 8;13(5):2927. mdpi.com
25. Sahoo SK, Goswami SS. A comprehensive review of multiple criteria decision-making (MCDM) Methods: advancements, applications, and future directions. Decision Making Advances. 2023 Jun 28;1(1):25-48.
26. Arhipova O, Kokina I, Rauckienė-Michaelsson A. SCHOOL PRINCIPAL'S MANAGEMENT COMPETENCES FOR SUCCESSFUL SCHOOL DEVELOPMENT. Bridges/Tiltai. 2018 Mar 1;78(1).
27. Suzuki H, Hong M, Ober T, Cheng Y. Prediction of differential performance between advanced placement exam scores and class grades using machine learning. InFrontiers in Education 2022 Dec 6 (Vol. 7, p. 1007779). Frontiers Media SA.

CITE AS: Asiimwe Aisha (2025). Creative Problem-Solving in School Management. EURASIAN EXPERIMENT JOURNAL OF HUMANITIES AND SOCIAL SCIENCES, 7(2):36-41