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Educational Management Strategies to Engage Teachers in the Development of Ecuador's Competency-Based Curriculum Framework

Estrategias de gestión educativa para implicar al docente en el desarrollo del Marco Curricular Competencial de Ecuador

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Abstract

The implementation of Ecuador's Competency-Based Curriculum Framework (MCC) represents a complex process that demands structural transformations in curriculum planning, instructional practices, and the professional role of teachers. This qualitative study, grounded in a phenomenological approach, aimed to understand the educational management strategies required for the effective implementation of the MCC within a school located in the province of Tungurahua. Semi-structured interviews were conducted with department heads and school authorities. The analysis was structured around four key categories: understanding of the framework, teacher competencies, competency-based curriculum planning, and institutional change. The findings reveal notable progress in the incorporation of methodologies such as STEAM, interdisciplinary approaches, and neuroeducation, indicating a strong commitment among teachers to continuous improvement. However, challenges remain, particularly in relation to limited specialized training, technological constraints, and resistance to change. Competency-based planning encounters difficulties in ensuring curriculum progression, especially in public institutions with limited resources. Moreover, weaknesses in pedagogical leadership and institutional coordination further hinder the comprehensive adoption of the new approach. The study concludes that proactive educational management—centered on sustained teacher support, coordinated stakeholder engagement, and strategic investment in training and resources—is critical for consolidating the implementation of the MCC and effectively addressing the challenges of 21st-century education.

Keywords: Competency-Based Curriculum, Educational Management, Competency-Based Planning, STEAM, Teacher Training, Pedagogical Leadership

Resumen

La implementación del Marco Curricular Competencial (MCC) en Ecuador constituye un proceso complejo que demanda transformaciones estructurales en la planificación, la enseñanza y el rol docente. Este estudio cualitativo, de enfoque fenomenológico, tuvo como objetivo comprender las estrategias de gestión educativa necesarias para implementar eficazmente el MCC en una institución educativa de la provincia de Tungurahua. Se aplicaron entrevistas semiestructuradas a jefes de área y autoridades, organizando el análisis en cuatro categorías: comprensión del marco, competencias docentes, planificación curricular y cambios institucionales. Los hallazgos mostraron avances en la incorporación de metodologías como STEAM, interdisciplinariedad y neuroeducación, evidenciando un compromiso docente con la mejora continua. Sin embargo, persisten obstáculos relacionados con la escasa formación específica, las limitaciones tecnológicas y la resistencia al cambio. La planificación por competencias enfrenta retos vinculados con la progresión del currículo, especialmente en contextos públicos con recursos limitados. Asimismo, se evidencian debilidades en el liderazgo pedagógico y la coordinación institucional, lo cual dificulta la adopción plena del nuevo enfoque. Se concluyó que una gestión educativa proactiva, centrada en el acompañamiento docente, articulación entre actores e inversión en recursos y capacitación, es clave para consolidar la implementación del MCC y responder a los desafíos del siglo XXI.

Palabras clave: marco curricular competencial, gestión educativa, planificación por competencias, STEAM, formación docente, liderazgo pedagógico

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Introduction

Education is a formative process that seeks to foster the evolution of new generations through the acquisition of knowledge and learning, grounded in scientific, humanistic, and practical approaches aimed at shaping ethical citizens with critical thinking skills. Achieving this goal depends on a series of changes proposed in curricular educational projects and on the new attitudes adopted by teachers as key agents in building a better society (Cassanova et al., 2018, p.114).

Therefore, the educational curriculum model must undergo constant restructuring in response to the evolving demands and expectations of contemporary society. In other words, the new curricular dynamic is oriented toward creating teaching and learning processes focused on scientific, practical, and reflective knowledge. In this way, new generations will be better equipped to face the challenges of the modern era (Cárcamo & Pineda, 2020, p.4).

In this context, the authors highlight that the competency-based curriculum aims to develop a comprehensive student profile. It begins with the conceptualization of "competence," understood as the development of skills and abilities across four essential domains: being, knowing, doing, and transcending. Each of these domains encompasses cognitive processes and the application of skills to solve real-life problems (Cárcamo & Pineda, 2020, p.6).

This theoretical orientation was adopted in the Ecuadorian context as part of a broader curricular transformation driven by a series of educational reforms intended to improve the quality of education and adapt it to the emerging needs of 21st-century society. Accordingly, the approval of the 2008 Constitution and the enactment of the 2011 Organic Law of Intercultural Education marked the beginning of a profound transformation of the national education system.

Within this same context of change, the role of the teacher has evolved into that of a guide who facilitates or mediates the construction of knowledge. This requires a reflective perspective on competencies, grounded in an educational paradigm that contextualizes knowledge and seeks meaningful, solution-oriented learning. The goal is for students to find learning engaging and become social agents capable of interacting with their environment (Navas & Ospina, 2020, p.3).

Given the above, it is imperative to establish educational management strategies that actively involve teachers in the development and implementation of the competency-based curriculum framework. These strategies should provide clear methodological guidelines to support teachers in the planning, design, and assessment of their instructional units. Thus, teachers must possess the necessary tools to monitor student learning effectively, as well as the assertiveness to guide pedagogical interventions. This can be achieved through a systematic, planned, and intentional educational approach that aims to promote dynamic and participatory learning experiences.

In this way, teacher-led educational management opens the door to new opportunities for meaningful learning that can be applied to various real-life situations. Teachers have the capacity to redirect the learning process toward the achievement of educational goals. It is important to note that not all learning yields the same results; therefore, teachers—through their academic training

and daily practice—can propose challenges that are relevant to students and, in doing so, make a meaningful impact on their lives (Administración Nacional de Educación Pública, 2022, p.54).

In light of this, the present study aimed to understand the educational management strategies required by the institution to implement Ecuador's Competency-Based Curriculum Framework, by identifying teachers' prior knowledge, the challenges faced, and their perception of change, in order to improve teaching practices and support the development of the new curriculum.

1.1. Curricular Approaches within Ecuador's Competency-Based Framework

The need to adapt to the new realities of the 21st century—marked by rapid and constant social and educational change—is now unavoidable. While access to information, the integration of new technologies, the emergence of innovative ideologies in societal values, and the pressing need for social transformation are all vital, it is equally important to recognize the urgent need to reshape the educational landscape toward a more ethical and humanistic paradigm aligned with the demands of the current era.

In other words, teaching professionals must engage with the times and adopt models that are coherent with contemporary society. This requires self-directed professional development that incorporates autonomous learning, cooperation, collaboration, and competency-based work. In doing so, educators can reconfigure both themselves and their pedagogical approaches to address individual and collective needs (Arderiu & Brasó, 2020, p. 40).

Within this context, it is essential to understand the competency-based framework in order to ensure its advancement and practical application. As López (2021, p. 55) notes, the competency-based curriculum is designed as an international model that addresses current challenges in the educational field. Its central goal is grounded in a humanistic approach built upon four core principles: learning to know, learning to do, learning to live together, and learning to be. This humanistic vision promotes a broad conception that not only embraces curriculum but also integrates knowledge and experience in an explicit and systematic way.

A key component of the curricular framework is the inclusion of STEAM methodology and interdisciplinarity. STEAM—an acronym for Science, Technology, Engineering, Arts, and Mathematics—emphasizes integrative learning in which various disciplines collaborate to generate creative solutions to real-world problems. This methodology presents knowledge from a holistic, constructivist perspective, empowering students to learn dynamically and develop competencies needed to address the challenges of modern society.

Interdisciplinarity is embedded within the framework, enabling students to learn at their own pace and in a flexible manner. It is based on collaborative competencies that foster the ability to solve societal problems (Alcívar et al., 2023, p. 38). In connection with the competency-based approach, the curriculum opens pathways to the labor market by preparing students to perform specific functions while achieving personal and professional fulfillment. From this perspective, competency integration engages all dimensions of the human experience, supporting motivation, employability,

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and personal development, all of which contribute to improved interpersonal relationships (Ramírez, 2020, p. 24).

Furthermore, the competency-based model is characterized as an integrative framework composed of the dimensions of knowing, doing, being, and coexisting. Its foundations draw from behaviorist, cognitivist, constructivist, and humanistic pedagogical models, all of which converge in the development of skills, abilities, attitudes, and values within a sociocultural context to effectively address real-world problems (Campos de Rivas, 2023, p. 6). Competency-based planning, in this regard, entails the organization of learning situations from a perspective that goes beyond theoretical knowledge to prioritize its application in the immediate future, incorporating interdisciplinary approaches.

To achieve this, case studies and project-based learning are recommended, as they provide a didactic sequence aligned with specific learning objectives (Pineda & Ruiz, 2021, p. 161). Teachers, in turn, must possess competencies in information and communication technologies, collaborative work models, and the design of dynamic, creative strategies that can be integrated with a variety of educational resources.

1.2. Educational Leadership and School Reform

Similarly, the strategic leadership necessary for implementing the Competency-Based Curriculum Framework (MCC) must be supported by effective leadership, planning, and coordination—not only on the part of school administrators but also the broader educational community. In this process, school leadership plays a pivotal role, as administrators are responsible for guiding the development of the Institutional Educational Project (PEI) within their schools, based on the learning outcomes they aim to achieve. However, there are still groups of school leaders who remain disconnected from these principles and believe that such responsibilities fall solely on teachers, given the autonomy teachers have in planning and designing their lessons.

To realize this integrative, competency-based model, institutions must establish structures that promote professional development and support for teachers. This includes access to workshops and training sessions that guide them in implementing the competency-based curriculum. Likewise, institutional articulation is essential: all teachers should work toward a common goal through collaboratively designed activities, organized in supportive work teams with ongoing guidance and access to the necessary tools and resources to implement effective learning strategies.

UNESCO (2022) warns that technological inequality and the digital divide negatively impact educational equity. For this reason, competency-based planning must incorporate strategies aimed at reducing these disparities and ensuring that all students can benefit from digital learning environments.

Interdisciplinarity is a core feature of the curriculum, allowing students to learn at their own pace and in a flexible manner. It is grounded in collaborative competencies that help students develop the skills to solve societal problems (Alcívar et al., 2023, p. 38). In connection with the competency-based curricular approach, the curriculum also opens pathways to the workforce,

preparing students for specific roles while enabling them to find fulfillment in their daily and productive activities. Here, competency integration encompasses various dimensions of the human experience, where motivation, employability, and personal development contribute to interpersonal relationships (Ramírez, 2020, p. 24).

The curricular framework includes STEAM methodology and interdisciplinarity. STEAM—an acronym for Science, Technology, Engineering, Arts, and Mathematics—promotes integrative learning across disciplines with the goal of developing creative solutions to complex problems. This methodology emphasizes a holistic, constructivist approach to knowledge, allowing students to engage in dynamic learning experiences that strengthen their competencies to face the challenges of society.

The implementation of the Competency-Based Curriculum Framework requires effective coordination between instructional leadership, competency-based planning, the integration of technology, and the adoption of interdisciplinary approaches such as STEAM. Although various challenges persist, efficient educational management and well-designed training strategies can support the transition toward a more relevant and responsive teaching model aligned with the demands of the 21st century.

Methodology

2.1. Study Design

The study supporting this paper adopted an a priori qualitative approach, meaning that the analysis was conducted using pre-established categories defined during the operationalization phase (Denzin, 2000). The aim was to understand teachers' perceptions regarding the curricular change involved in the Competency-Based Learning Framework approved by Ministerial Agreement No. MINEDUC-MINEDUC-2023-00086-A (Ministry of Education, 2023).

2.2. Type of Study

This work is classified as a phenomenological study. It analyzed the perceptions of school leaders and teachers based on pre-established categories and interpreted findings through the lens of lived educational experience. According to Husserl, as cited by Jiménez Tecillo and Valle (2016, p. 38), "it is a matter of reflecting on what can be called educational experience, from a phenomenological disposition," without altering the perspective and using induction as a methodology to build pragmatic constructs derived from interview data. The phenomenological analysis helped to understand the educational phenomenon not only as a process, but as a lived experience of each individual shaped by classroom pedagogical practice.

2.3. Participants

Due to its qualitative and phenomenological nature, the study required the participation of teaching staff from an educational institution located in the province of Tungurahua, Ecuador. This institution

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includes 38 teachers working across the Basic and Upper Secondary Education levels it offers. For participant selection, department heads and the vice-principal were chosen in order to ensure a comprehensive view that included both school leadership and teachers involved in curriculum and pedagogical oversight.

2.4. Data Collection Instruments

In alignment with the study's qualitative and phenomenological nature, a semi-structured interview was used to explore participants' experiences and perceptions regarding the curricular reform. The interviews were constructed around the study's core dimensions, as follows:

- **Understanding of the Competency-Based Curriculum Framework:** explored the strategies used by school management to integrate interdisciplinary approaches and enhance teacher collaboration.
- **Competencies to Develop Competencies:** examined the mastery of interdisciplinary projects and the use of ICT and TAC in daily teaching.
- **Leadership-Level Changes:** investigated the strategies recognized by teachers in response to the challenges described in previous categories, aiming to improve educational management.
- **Institutional-Level Changes:** explored new organizational structures adopted by schools in response to the challenges of competency-based education.

2.5. Procedure

The study followed an inductive qualitative logic to thoroughly capture participants' experiences in shaping strategies aligned with Ecuador's Competency-Based Curriculum. A literature review was also conducted to support the development of the analytical categories and the research instrument. Once the interview protocol was developed, it was validated using expert judgment, allowing refinement of the questions and preparation for the interview sessions.

The study focused on curricular approaches such as STEAM, interdisciplinarity, and neuroeducation in the context of the framework in effect at the time of research. Once informed consent was obtained from participants, interviews were audio-recorded and transcribed using Google's free tool, *Journalist Studio*. Data were analyzed using a simple citation and semantic structure review, enabling the identification of a coding system to pseudonymize teacher identities. The code included the teacher identifier (e.g., T1), the question number, and, in cases of lengthy responses, the paragraph number (in accordance with the Organic Law on Personal Data Protection, 2021).

Once the data were processed, the analytical categories were saturated to derive a comprehensive analysis of strategies that address the needs of teaching staff. This analysis contributed to a deeper understanding of teachers' experiences and perceptions, highlighting both successes and challenges in the implementation of the new curriculum, and providing valuable insights for future improvements in educational management.

2.6. Ethical Considerations

In accordance with research ethics, participants provided a signed consent form prior to the interview, confirming their voluntary participation, free from coercion, and their right to withdraw at any time. Participants were assured that their personal identity would be protected through a simple coding system that anonymized their responses. As there was no express authorization from the educational institution to use its name in the study's results, this information was kept confidential.

Results

This section presents qualitative data obtained from semi-structured interviews conducted with teachers and administrators at the participating educational institution. The information is based on their experiences and perceptions regarding the implementation of the Competency-Based Curriculum Framework in their educational context. Additionally, it highlights emerging themes identified during the thematic coding process, discussing the implications of these findings, emphasizing both achievements and challenges, and suggesting recommendations to improve pedagogical practice and curriculum management.

3.1. Understanding the Competency-Based Framework

The combination of interdisciplinary approaches such as STEAM and neuroeducation has proven effective in capturing and stimulating students' attention. However, some teachers initially struggled to connect different subject areas. One teacher noted: "My experience integrating interdisciplinarity and neuroscience was interesting, but at first, I struggled to connect topics across different areas. These methods sparked a desire to learn and increased students' attention." (T1.01)

Santamaría et al. (2022) suggest that educational institutions that adopt the STEAM model are those that most successfully foster fundamental skills such as critical thinking, creativity, and problem-solving, especially in science and technology fields. However, they stress that proper implementation is essential to ensure educational quality. Valle et al. (2023) argue that insufficient training and lack of resources are the main challenges teachers face when implementing STEAM projects. Similarly, Zapatera (2025) emphasizes the urgent need to rethink current educational models to strengthen scientific and technological competencies that prepare students to adapt to ongoing societal changes.

STEAM projects are recognized for fostering scientific and technological interest among students from an early age. However, limited internet access remains a significant barrier. A teacher explained: "The problem we've noticed is that we don't have—or can't access—reliable internet service, which would allow us to work more effectively with this system." (T2.01.1) Additionally, some teachers indicated a lack of training and familiarity with these approaches in the country: "There's a lack of teacher training and, frankly, a lack of awareness on our part because it was something new." (T2.01.2) Jimbo and Bastidas (2024) describe STEAM education as an approach

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that integrates disciplines to promote both critical and creative competencies in basic education. Nonetheless, they highlight the difficulties in applying it, particularly due to insufficient teacher preparation and the scarcity of resources in vulnerable areas. Likewise, López (2021) notes that implementing virtual programs based on the STEAM model presents significant challenges, including limitations in technological infrastructure and the ongoing need for teacher training.

3.1.1. Competency-Based Curriculum Approach

Adopting a competency-based curricular approach has brought significant changes in both teaching and assessment. One teacher observed: "It's been challenging, mainly because it requires a shift in how we teach and assess—from content-based teaching to a focus on developing specific skills and competencies." (T1.02) These transformations, though necessary, often encounter resistance and highlight the need for continuous professional development: "When something new begins, there's always resistance to change, and in the education system, of course, that was no exception." (T2.02) Technological limitations also hinder the process: "The lack of didactic materials using technology makes teaching and integration a bit more difficult." (T3.02) Florez (2021) argues that competency-based education, under a socio-formative approach, aligns with current demands for knowledge and skills development in modern society. Similarly, Moreta (2024) asserts that this approach can improve educational quality, although it faces challenges such as a tendency to focus more on subject mastery than on developing transversal competencies. Ramírez (2020) also stresses the importance of the competency-based approach in vocational guidance, emphasizing the need for a comprehensive education that prepares students to face complex challenges.

3.1.2. Competency-Based Planning

Competency-based planning depends heavily on available resources. One teacher shared: "When we've had more resources or access to tools, planning becomes much more dynamic and aligned with competency objectives." (T1.03) However, limited technology and resources in public schools pose challenges: "When we try to deliver our lessons, we face the unfortunate reality that we lack the technology to implement them the way we would like." (T2.03) Still, teachers have found ways to adapt to existing conditions: "Being a public school makes it a bit harder to compare... we just need to be more organized, but it can be done." (T3.03)

Vinces et al. (2023) argue that proper planning is essential for effective school management. Conversely, weak strategic planning can negatively affect educational quality. In this regard, Florez (2021) asserts that a collaborative approach ensures that key factors such as learning evidence and curricular adaptation to student needs—especially in higher education—are addressed. Ramírez (2020) also emphasizes the role of planning in creating a curriculum that supports effective, skill-centered teaching.

3.2. Competencies for Developing Competencies

3.2.1. Mastery of Interdisciplinary Projects

Working with interdisciplinarity has helped both teachers and students broaden their learning perspectives. One teacher shared: “A rewarding experience was working with science and art teachers on a STEAM project—it was satisfying to see students apply concepts in a more real-world context.” (T1.04) However, limited coordination time and differing levels of familiarity among teachers posed difficulties: “The lack of time to coordinate and the fact that some colleagues are less familiar with this type of project made it challenging.” (T1.04) Additionally, teachers had to adapt to disciplines they were less comfortable with: “Personally, I don’t like chemistry, so including it in a project is a bit difficult.” (T3.04)

Valle et al. (2023) explain that STEAM projects have become widely used pedagogical strategies in secondary education, though they face significant challenges—including the need for targeted teacher training and integration into school programs. Similarly, Castro et al. (2021) show that integrating the STEAM approach into the education system can lead to meaningful change by promoting connections among educational fields and real-life application. Jiménez Tecillo (2022) emphasizes that collaboration is key to STEAM’s success, fostering research and interaction among teachers and academic disciplines.

3.2.2. Use of ICT and Learning & Knowledge Technologies (TIC/TAC)

Technology has transformed learning, creating dynamic and self-directed educational opportunities. One teacher remarked: “ICT and TAC had a huge impact… they opened up opportunities for students to participate more actively in class.” (T1.05) However, unequal access to technology, especially in rural areas, limits their application: “Without good internet access... mobile data doesn’t work properly.” (T2.05.2) Additionally, the lack of training and familiarity with platforms reduces effectiveness: “The lack of continuity and unfamiliarity with the platform prevents us from using it effectively.” (T2.05.1) Ziegler et al. (2020) noted that approximately 50% of the world’s population lacked internet access in 2020, creating major inequities in online education and reinforcing the urgency of closing the digital divide. Similarly, UNESCO (2022) states that gender inequality in technology access can negatively impact digital skills and limit professional opportunities for women and girls in tech-related fields.

3.2.3. Teaching Strategies and Instructional Resources

The availability of teaching materials plays a crucial role in implementing the competency-based curriculum. One teacher stated: “The lack of specific resources adapted to this approach prevents students from developing competencies.” (T1.06) They also noted that the Ministry of Education should provide clearer guidelines for implementation: “Sometimes these agreements are very hard to understand and apply.” (T2.06.1) Limited access to technology in public schools also restricts resource availability: “Due to our geographic location, internet access is very poor.” (T3.06)

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Valle et al. (2023) highlight the importance of proper teaching materials and teacher training for effective STEAM implementation. Castro et al. (2021) emphasize the need to integrate STEAM into the educational curriculum to move beyond traditional teaching methods and strengthen the relationship between disciplines and real-life applications. Ziegler et al. (2020) also stress that a lack of connectivity and technical resources leads to serious inequalities in digital education, underscoring how crucial it is to close the digital divide so all students have access to the tools they need for effective learning.

3.3. Changes at the Management Level

3.3.1. Leadership Roles

Support from school leadership is essential for implementing the competency-based curriculum. One teacher noted: "The support and involvement of school leaders has been fundamental […] it has provided more clarity and guidance regarding expectations for implementing competencies." (A1.01) However, a lack of oversight can lead to teacher overload: "When communication is poor or there's no proper follow-up, it results in an increased workload for teachers." (A2.01)

According to the Organisation for Economic Co-operation and Development (OECD, 2021), principals who exercise pedagogical leadership play a more active role in designing and developing the school curriculum. This type of leadership allows them to more effectively guide classroom teaching strategies aligned with educational objectives and also to support the professional growth of teachers. Likewise, the OECD (2021) highlights that pedagogical leaders continuously monitor teaching practices and assess student learning outcomes based on institutional educational goals. Similarly, Fundación Santillana (2019) emphasizes that clear and effective communication from school leaders not only fosters a positive work environment but also facilitates the adoption of curricular and methodological innovations.

3.3.2. Leadership Communication

Effective communication between administrators and teachers is essential to ensure curricular coherence. One teacher stated: "They try to inform teachers and the academic community through study groups and, in some cases, digital platforms." (A1.02) Despite these efforts, challenges persist when information is delayed or incomplete: "Due to a lack of timely and appropriate feedback and information, uncertainty arises among teachers and the academic community." (A2.02)

Cayatopa and Pantigoso (2022) assert that clear and effective communication is vital for strengthening the learning process, since collaboration between teachers and administrators is crucial. Fundación Santillana (2019) also shows that strong communication from school leaders not only connects members of the academic community but also contributes to a positive work climate by boosting motivation. Furthermore, the OECD (2021) notes that principals who adopt a learner-centered approach actively participate in curriculum development and demonstrate a strong ability to align teaching strategies with institutional educational goals.

3.4. Changes at the Organizational Level

3.4.1. Work Teams

Open communication and a well-structured organization are essential for successful teamwork in educational settings. One interviewee emphasized: “The key to success is good communication and openness to share ideas and teaching methods from different disciplines.” (A1.05) However, poor coordination can limit the impact of innovative approaches: “If coordination between administrators and teachers is weak […] it affects the effectiveness of the work.” (A2.05) García-Peñalvo et al. (2020) argue that working in small teams is crucial for fostering creative environments, improving problem-solving, and encouraging deep thinking and both individual and collective development. Likewise, Herrera et al. (2017) maintain that teamwork is an essential skill for professionals, as it facilitates the integration of various abilities and knowledge. Rojas et al. (2010) also state that to improve the quality of educational services, it is essential to offer ongoing professional development and strengthen the competencies needed for interdisciplinary team work. In this regard, Suárez et al. (2023) stress that effective educational management prioritizes teamwork and involves all members of the school community to ensure the achievement of institutional goals.

3.4.2. Roles and Functions

Regarding the definition of leadership roles and functions within educational management to align with the competency-based curriculum, one teacher emphasized: “More specific definitions of roles and expectations would help us work more efficiently and in alignment.” (A1.06) In some cases, organizational deficiencies and workload imbalances lead to frustration: “The lack of clarity in roles or task overload for certain teachers negatively affects performance.” (A2.06) Manes (2004) states that “those responsible for these tasks must learn new techniques that enable them to lead, guide, or manage better educational projects—pedagogically effective and administratively efficient” (p. 12). Similarly, Mayorga et al. (2023) affirm that for institutions to function effectively and for staff to achieve better outcomes, proactive and inspiring leadership is essential. In another study, González and Agramonte (2024) highlight that well-organized educational management allows for the structuring and coordination of activities, contributing to the successful achievement of institutional goals. Indeed, they argue that well-structured school management ensures mission success and addresses the challenges posed by educational reforms.

Conclusions

This study provided a comprehensive understanding of the strengths and weaknesses of the teaching staff regarding the implementation of Ecuador’s Competency-Based Curriculum Framework. Teachers’ reflections reveal a genuine commitment to continuous improvement and the transformation of their pedagogical practice, in alignment with curricular principles. The integration of approaches such as STEAM, interdisciplinarity, and neuroeducation marks a turning point for the education system, demanding not only the effective use of ICT and TAC, but also a deep restructuring of the school organization, teaching processes, and the teaching role itself.

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Despite these advancements, resistance to change persists—mainly linked to insufficient training for the new approaches and limited development of digital and informational competencies—negatively impacting pedagogical management. Likewise, competency-based planning faces the challenge of ensuring curricular continuity and progression, especially in diverse and dynamic contexts.

Interdisciplinarity demands greater collaboration among educational stakeholders, requiring effective coordination for the implementation of meaningful, contextualized projects. Urgent needs remain in terms of continuous professional development, technological investment, and the adaptation of educational resources—critical factors for effective STEAM implementation.

In terms of educational management, the study highlights the need for active and sustained involvement of school leaders—moving beyond administrative leadership to embrace committed pedagogical leadership, characterized by effective communication and close support for teachers. Accordingly, a reconfiguration of institutional roles and a school culture centered on teamwork, continuous improvement, and professional development are proposed as essential conditions for consolidating the Competency-Based Curriculum Framework.

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