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Enhancing Teacher Training Quality through Transversal Skills: A Case Study of CRMEF Sidi Kacem

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CONTENT

Introduction Method **Result and Discussion Implications and Contributions Limitation & Future Research Directions** Conclusion Acknowledgments **Author Contribution Statement Conflict of Interest Statement Ethical Approval Statement** References **Article Information**

ABSTRACT

Background: To support Morocco's growth, the education sector must prioritise improving teacher qualifications through higher standards in training and professional development, focusing on transversal skills and modern, techintegrated methodologies. Method: The study employs a combination of interactive research methodologies, including questionnaire-based data collection and content analysis, to interpret the results. These methodologies allow for an in-depth evaluation of the current state of teacher training and the integration of transversal skills into professional development programs. **Result:** The findings stress the importance of providing teacher trainees with transversal skills for critical reflection, professional growth, and improved teaching outcomes, while urging educational systems to move beyond traditional methods and address gaps in teacher training programs with targeted interventions. Conclusion: Integrating transversal skills into the curriculum is essential to enhance teacher training in Morocco. The shift towards innovative, skill-based teaching methodologies will better prepare educators for the challenges of modern classrooms, ensuring they are equipped to contribute effectively to Morocco's educational advancement. Contribution: This study offers insights into enhancing teacher training programs through transversal skills. It suggests interventions to equip teachers with the necessary skills to meet evolving educational demands, supporting Morocco's efforts to align its education sector with global trends.

KEYWORDS

Transversal skills; Quality of training; Educational actors; Teacher trainees; Communication skills.

1. INTRODUCTION

The Educational Centre for Education and Training Professions (CRMEF, abbreviation in French) is a key institutional pillar in advancing the Moroccan education and training system (Barakat, 2022). As an official body, it plays a vital role in equipping educational actors, namely teaching and administrative staff, with the knowledge and

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professional competencies needed to participate meaningfully in the process of educational reform and to steer the system toward the principles of sustainable development. This mission aligns closely with the Strategic Vision 2015– 2030, which stresses the urgency of building a school that ensures equity and quality by investing in material infrastructure and human capital (Al-Alami, 2014).

This reformative path has been further invigorated by implementing the 2022-2026 Roadmap, which articulates three primary objectives. First, it prioritises the assurance of quality in basic education. Second, it aims to reinforce openness and citizenship by expanding the reach of extracurricular and parallel activities among students. Third, it seeks universal access to compulsory education to curb dropout rates and reduce school wastage. These objectives are grounded in a reform philosophy highlighting three interdependent pillars: the learner, the school environment, and the teaching staff. Specifically, the learner must be open-minded, autonomous, and equipped with mastery of foundational skills. The school must offer a secure, inclusive, and collaborative climate (Ezeaku & Okoye, 2025). The teacher must be professionally qualified, motivated, and empowered to engage in lifelong learning and adapt to pedagogical innovations.

Recent studies reinforce the validity of this framework, El-Hajjami & Benabderrazik (2022) found a direct correlation between teachers' participation in continuous professional development programs and the academic performance of their students in Moroccan public schools. This suggests that qualified and constantly evolving educators are central to the success of educational reform. Similarly, a study by Ouahbi et al. (2023) revealed that learners who are encouraged to take ownership of their educational journey through student-led activities and reflective learning tasks tend to outperform their peers in national assessments, highlighting the importance of fostering learner autonomy. Furthermore, data from UNICEF-Morocco's 2024 education report points to the crucial role of a safe and collaborative institutional environment, showing that schools which promote strong peer collaboration among teachers and foster a positive school climate witness improved attendance and retention rates, particularly in disadvantaged and rural communities.

The integration of citizenship education through extracurricular activities has also proven effective. Moroccan Ministry of National Education (2023) report found that schools that actively implement structured extracurricular programs report higher levels of student engagement, cooperation, and social responsibility. Lastly, the World Bank's (2023) analysis of Moroccan education reform underscores the importance of aligning basic education with the demands of the modern labour market. It emphasises that Moroccan learners must develop 21st-century skills such as critical thinking, digital literacy, and adaptability to navigate the transition from school to employment successfully.

1.1 Transversal Skills

Transversal skills refer to transferable behavioural competencies that empower individuals, particularly young people, to assume greater responsibility over their lives. These skills enhance their capacity to make healthy, informed choices and develop resilience against negative pressures (Challa, 2008). Broadly speaking, transversal skills encompass a range of performances and cognitive preparations that enable individuals to navigate daily life effectively and meet its multifaceted demands. These include, but are not limited to, communication, negotiation, collaboration, participation, creativity, analytical thinking, and critical reasoning.

UNICEF (2016) offers a comprehensive framework by categorizing transversal skills into four domains. The first involves management skills, which relate to building self-esteem and self-confidence, which are foundational for personal growth and initiative. The second domain, cognitive skills, includes decision-making, problem-solving, and the ability to engage in strategic thinking. The third encompasses teamwork skills such as planning and leadership, essential for functioning within group dynamics. The fourth domain, social skills, covers vital interpersonal competencies like empathy, communication, and negotiation, all of which contribute to creating cohesive and inclusive environments.

Recent educational innovation has emphasized the urgency of integrating these transversal skills within 21stcentury learning models. For instance, the Microsoft Education Platform (2024) underscores the importance of preparing teachers and learners to thrive in dynamic and interconnected global societies. One of the key shifts it promotes is cognitive construction, whereby learners go beyond rote memorization to engage deeply with content through analysis, synthesis, and evaluation. In this model, collaboration is not merely group work but involves shared responsibility, collective decision-making, and the negotiation of meaning among peers. Practical problem-solving is emphasized as learners are encouraged to apply theoretical knowledge to real-world challenges, fostering innovation and adaptability.

Moreover, effective communication is redefined to include multimodal expression grounded in dialogue, supported by evidence, and sensitive to context. Such communication relies on developing trust, conflict resolution, and mutual understanding. Self-regulation also emerges as a critical transversal competency, requiring learners to plan tasks effectively, allocate responsibilities, and monitor progress. Equally significant is the role of information and communication technology (ICT), which serves as a support tool and a catalyst for creative engagement. Learners are encouraged to design ICT-based solutions that address real needs, becoming producers of digital content rather than passive consumers (Bhoir & Patil, 2021).

Over the past five years, research supports the importance of transversal skills in improving educational outcomes and future employability. According to the OECD's (2023) report on future-ready skills, education systems that explicitly integrate transversal competencies see higher student engagement, improved academic performance, and stronger adaptability in post-school environments. Similarly, a study by Aoun et al. (2022) on global skill development emphasized that transversal skills, particularly creativity, collaboration, and digital literacy, are more predictive of long-term success than technical knowledge alone.

1.2 Transversal Skills between the Global and the Local

Social policies in general and education policies in particular are increasingly shaped by international frameworks, heavily influenced by the global economic order and the conditionalities imposed by international financial institutions such as the International Monetary Fund and the World Bank. These institutions significantly steer national education reforms, particularly in developing regions, by aligning education strategies with broader global economic priorities (Verger et al., 2021).

In this context, the World Bank's 2008 regional report on education reform in the MENA region stressed the need to embed transversal or 21st-century skills into school curricula. According to this report, primary, secondary, and tertiary learners across all education levels grapple with three interconnected challenges: learning deficits, inadequate employment opportunities, and limited social cohesion. Addressing these issues necessitates a shift towards skillsets that enable students to function, integrate, and thrive within today's socio-economic structures (World Bank, 2008).

A second primary concern outlined by the World Bank and echoed by recent regional research (OECD, 2023) relates to the structural limitations of education systems in North Africa. These systems are overburdened and often under-resourced, struggling to equip learners with the transversal skills such as critical thinking, collaboration, and problem-solving that are increasingly required in a rapidly shifting labour market and digital economy. This gap between education outputs and employment demands has prompted calls for deep curricular reform and teacher retraining.

Responding to these global and regional imperatives, Morocco's New Development Model (2021) has highlight-ted the importance of integrating soft and transversal skills within the national education system to ensure school-to-work alignment and achieve long-term sustainable development. The model promotes a learner-centred approach incorporating creativity, adaptability, and civic engagement, key competencies for modern citizenship and economic productivity (Ghafar, 2024).

Transversal skills are equally vital for educators, particularly research professors who are expected to respond to complex and evolving educational challenges. These skills support the design and implementation of interventional research, facilitate evidence-based problem-solving, and enable reflective practice on pedagogical and institutional levels. They also empower educators to articulate clear professional choices, manage their responsibilities efficiently, and engage in self-development while fostering collaborative and communicative environments. Fullan (2020) noted that such capacities are essential for cultivating professionalism, innovation, and resilience in today's teaching workforce. In short, research-based transversal skills form the foundation of meaningful professional development and educational transformation.

1.3 Quality of Training: a Multidimensional Concept

The concept of formative quality in education is multifaceted and has been defined in various ways, reflecting its inherent complexity. Terms such as effectiveness, efficiency, equity, and quality are often used interchangeably, precisely complicating efforts to define educational quality (Adams, 1993). Hoy (2000) and Wood (2000) conceptualize educational quality as an evaluative process to nurture learners' talents while adhering to accountability standards set by educational funders. Moreover, Goddard and Leask (1992) emphasise that quality in education is context-dependent and varies according to the expectations of diverse stakeholders, including parents, government bodies, students, teachers, employers, and organisations, each prioritising different dimensions of quality.

When discussing quality in professional training, it is imperative to focus on achieving the intended outcomes of the teaching-learning process within educational and vocational training centres. This involves ensuring the continuous professional development of educators and trainers by fostering core competencies such as planning, management, assessment, and ongoing research. These capacities are essential for addressing pedagogical challenges within the classroom and the broader educational environment (Darling-Hammond et al., 2020; Fullan & Langworthy, 2014).

Recent research highlights that quality education and training also require integrating learner-centred approaches, digital literacy, and adaptability to changing societal needs (OECD, 2023; UNESCO, 2022). Emphasising formative assessment, reflective practice, and collaborative problem-solving equips educators with the tools necessary to improve educational outcomes sustainably (Black & Wiliam, 2021).

This study aims to provide insight into how developing skills such as communication, cooperation, and problemsolving can improve the effectiveness of training and teacher performance in the context of education at CRMEF Sidi Kacem. In addition, this study also aims to provide practical recommendations for further development in teacher training in similar educational institutions.

2. METHOD

2.1 Research Design

This study explores integrating transversal skills into teacher training programs, particularly focusing on their relevance and application within CRMEF Sidi Kacem. Transversal skills, such as critical thinking, collaboration, adaptability, and digital literacy, are vital for preparing teachers to meet the evolving demands of modern classrooms. The study offers a detailed analysis of how these skills contribute to enhancing the overall quality of teacher training. Special attention is given to the enabling role of information and communication technologies (ICTs) in fostering active, learner-centred pedagogies.

By adopting this approach, the article examines the resources and tools available within the training institution, seeking to deepen the understanding of underlying concepts while identifying gaps in implementation and practice. These insights are then positioned within the broader educational context, connecting theoretical models and the real-world challenges teacher trainees and trainers face.

The paper also outlines the various stages involved in introducing transversal skills into the training curriculum, describing the processes and strategies used and the obstacles encountered. An overview of the outcomes is presented, emphasising trainee development and institutional adaptation. Finally, the article suggests areas for further research and practical experimentation to support the more effective and sustainable integration of transversal skills in teacher education.

2.2 Research Object

The study focused on teacher trainees from CRMEF Sidi Kacem, with participants categorised by age. The distribution of participants is as follows: (1) 32% were between 22 and 25 years old; (2) 30% were between 26 and 29 years old; (3) 38% were over 30 years old.

The research primarily focused on trainees under 30, as they represent the future of the teaching profession and are the primary demographic frequenting training centres, particularly for teaching staff development.

Table 1. Distribution of Participants by Age Group

Age Group	Frequency (n)	Percentage (%)
22-25	16	32%
26-29	15	30%
30 and up	19	38%

Regarding gender, 58% of the participants were female, and 42% were male. This gender distribution reflects the feminised nature of the regional centres for education and training professions, where females tend to outperform males in competition for positions and their higher representation in universities.

Table 2. Distribution of Participants by Gender

Gender	Frequency (n)	Percentage (%)
Female	29	58%

Gender	Frequency (n)	Percentage (%)
Male	21	42%

2.3 Data Collection

Data for this study were collected using qualitative and quantitative methods. Semi-structured interviews were conducted with teacher trainees and trainers to explore their experiences integrating transversal skills. Additionally, a survey was distributed to obtain broader data on the effectiveness of transversal skills in the training curriculum. Observations were also conducted during training sessions to assess the practical application of these skills.

2.4 Data Analysis

The qualitative data were analysed using thematic analysis to identify recurring themes from the interviews and observations. Quantitative data from the surveys were analysed using descriptive statistics, providing insights into trends and patterns related to integrating transversal skills. This mixed-method approach allowed for a comprehensive understanding of the effectiveness of transversal skills in teacher training and their impact on trainees and institutions.

3. RESULT AND DISCUSSION

3.1 Result

a) The Impact of Infrastructure on the Quality of Training in the Centres for Education and Training Professions

Ninety per cent of the professors surveyed stated that the nature of the infrastructure (training halls and spaces for parallel activities) has a significant impact on the effectiveness of the centre's qualifying training activities, indicating that the quality of training is affected by the availability of infrastructure that is equipped and facilitates progress.

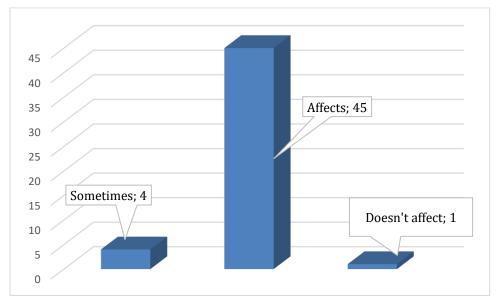


Figure 1. Infrastructure and its impact on the quality of training

b) Active Communication and Quality Training

The success of the basic training received by future teachers in educational centres must be based on active pedagogies, which guarantee more effectiveness than traditional pedagogies, an awareness that was recorded by the majority of the trainees who were surveyed, as they recorded the presence of traditional teaching by a group of trainers, and this can be confirmed in Figure 2.

The pedagogical methods used in the regional centres for education and training professions are as follows: 40% of the trainers tend to adopt the traditional method, while 32% are active interactive and 28% dialogic, which indicates that the methods are mostly modern, but this does not cancel the need to sound the alarm to get rid of the presentation, delivery and charging of the trainee, and leave opportunities for creativity and self-innovation.

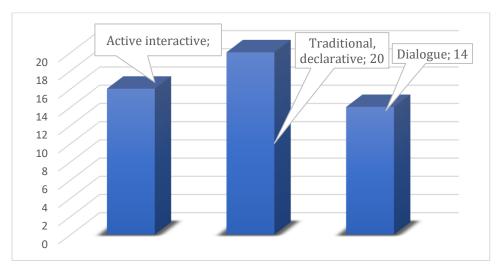


Figure 2. Pedagogical methods used by the trainers at the regional centres for education and training professions

c) Technological Skill and its Impact on the Quality of Training

The use of ICTs has become an urgent necessity in response to the rapid developments of the 21st century. This urgency is also reflected in the data collected from the field of study. As illustrated in Figure 3, trainers' use of ICTs during training sessions varies in frequency. Specifically, 32% of trainers reported using ICT tools occasionally, while 15% consistently incorporate them into their teaching practices. However, a small percentage, 3% indicated that they never use ICTs in their training. This variation highlights differing levels of integration of technological tools among trainers within the educational setting.

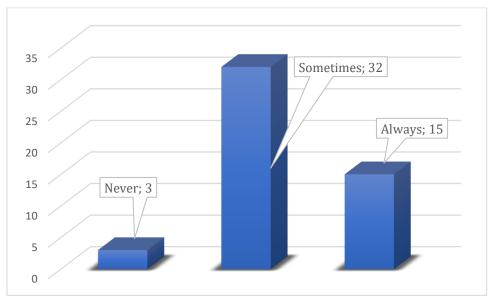


Figure 3. Trainers' use of ICTs

However, among those trainers who use ICTs, the quality of their usage varies significantly. According to the data, only 10% use ICT tools effectively, while 36% demonstrate an average usage. Unfortunately, 4% of trainers use these tools poorly, indicating a need for further training and support to maximise the benefits of technology in the learning process.

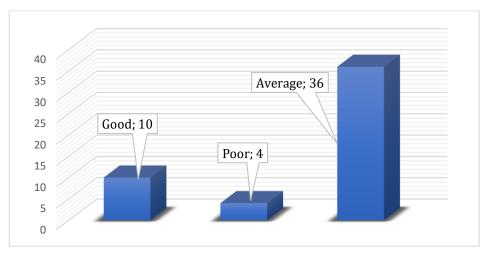


Figure 4. Quality of lessons presented using ICTs

d) The Skill of Good Cognitive Construction and Novelty of Training

Constructing knowledge through analysis and interpretation is essential for integrating transversal skills and moving away from memorisation and repetition, which tend to create passive and dependent learners. However, evaluations within the educational centre, whether constructive, integrative, or summative, revealed a predominance of traditional, transmissive assessment methods rather than rational, reflective ones. This trend is clearly illustrated by the increasing frequency of such evaluations, as shown in Figure 5.

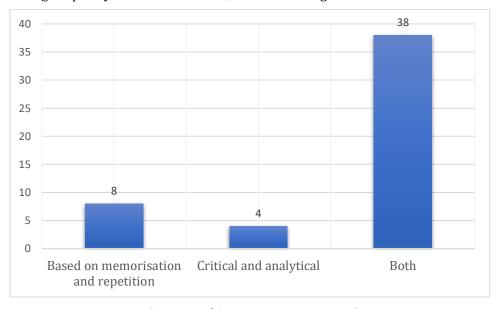


Figure 5. Nature of Assessment in Training Centres

3.2. Discussion

a) The Impact of Infrastructure on the Quality of Training in the Centres for Education and Training Professions

By infrastructure, we mean the physical and technical resources the training institution provides, including classrooms, research spaces, and the library. Field observations showed that the classrooms are in poor condition and unsuitable for effective learning. The Sidi Kacem branch also lacks proper research laboratories, which limits opportunities for practical training and academic development. As for the library, while it contains a medium-sized collection, it has not been updated with recent sources or references from the past decade. This reflects a lack of attention from successive management teams, despite the importance of such resources in supporting quality teacher training.

A well-equipped educational environment with strong infrastructure creates a stimulating and productive atmosphere. Modern, attractive, and fully equipped spaces foster integration, harmony, and active interaction between trainers and trainees (Ke et al., 2016). Such an environment cultivates a favourable climate for learning and communication, boosting confidence in the institution and its educational objectives (Zhang, 2025). Conversely, the lack of adequate facilities can lower motivation, negatively affect trainees' self-esteem and ultimately diminish the quality of the training provided.

The quality of training depends on an advanced learning environment that aligns with modern pedagogical and technological developments. From the interactive perspective we have adopted as our sociological research approach, Goffman's insight is particularly relevant: the physical environment shapes individuals' perceptions and roles within their active field (Goffman, 1956). When well-developed infrastructure fosters a space that boosts trainees' self-confidence and reinforces their sense of importance in their future teaching roles. Modern, well-equipped halls with the latest educational technology help establish discipline and improve academic performance within the educational centre. In contrast, fragile infrastructure leads to weak, unstable, and unproductive interactions (Goffman, 1963).

The field in which the trainee is located can give him or her a future identity or an effective role in society, as the active social self is built in an effective and coherent field, and future professional commitment requires receiving knowledge and skills in a qualified environment. Hence, investing in infrastructure is not just a formal technical issue, but an investment in the quality of interaction and training in educational centres, which contributes to the qualification of a new generation of teachers who keep pace with scientific developments (Oke & Fernandes, 2020).

According to Faik et al. (2025), a comprehensive assessment of the current status of training centres, including their physical infrastructure and human resources, is crucial for fostering the professional development of educational practitioners. This evaluation significantly enhances individual competencies, increases overall productivity, and improves societal outcomes. By identifying both strengths and weaknesses within these centres, targeted interventions can be implemented to promote effective teaching practices and elevate the quality of education (Faik et al., 2025).

b) Active Communication and Quality Training

The effectiveness of basic training received by future teachers in educational centres greatly depends on adopting active pedagogies, which have yielded better results than traditional pedagogical methods. Many of the trainees surveyed expressed the need for a shift away from outdated teaching practices, such as rote learning and lecture-style instruction, which often result in passive learning experiences (John et al., 2025). While still prevalent in some training centres, these traditional methods fail to engage learners effectively and often limit their critical thinking and creativity. In contrast, active pedagogies, which focus on learner-centred approaches, provide students with opportunities to engage in discussions, collaborative learning, and hands-on activities that align more closely with the demands of modern education. The shift toward active teaching methods enhances content mastery and the development of essential soft skills, such as problem-solving, communication, and teamwork.

Successful learning extends beyond acquiring academic knowledge; it also fosters the development of communication skills for both the learner and the teacher. According to Assefa (2024), effective communication in education empowers both parties to engage with the world outside the classroom, thus enriching their perspectives. Developing communication skills is vital for educators, as it helps them better interact with students, colleagues, and the broader community. Teachers who can communicate effectively create more inclusive and dynamic learning environments where students feel valued and heard. Moreover, students who develop strong communication abilities are better prepared for the social and professional challenges they will face beyond the classroom. In this way, communication becomes a cornerstone for academic success and personal and professional growth.

Successful pedagogical communication is founded on dialogue-based learning, which encourages active participation and mutual respect. Key components of this communicative approach include listening, accepting constructive criticism, respecting differing viewpoints, and mastering the skill of improvisation (Briones et al., 2022). In a classroom where dialogue is central, the teacher and the students constantly exchange ideas, making learning more dynamic and responsive. Teachers who embrace these communicative strategies create a more interactive learning environment where students are motivated to participate, ask questions, and share their insights (Salbaş & Ekmekci, 2025). Furthermore, such environments foster a sense of belonging and emotional safety, significantly enhancing student engagement and knowledge retention. This pedagogical communication also empowers students to become independent thinkers who can collaborate and contribute meaningfully to discussions.

To achieve successful learning outcomes, it is essential to incorporate modern activation techniques grounded in group dynamics principles. These techniques encourage interaction, collaboration, and problem-solving among students, strengthening their academic skills and preparing them for the complex, interconnected world they will enter after graduation. Group dynamics play a critical role in this process by facilitating cooperative learning, where students support each other in achieving common goals (Chen & Kuo, 2019). By fostering a collaborative learning atmosphere, educational institutions can nurture students' social and emotional intelligence, equipping them with the interpersonal skills necessary to thrive in diverse professional environments. Thus, the combination of active pedagogies, communication skills, and group dynamics results in a holistic educational experience that enhances academic performance and prepares future educators to be effective, empathetic leaders in their communities.

c) Technological Skill and its Impact on the Quality of Training

ICTs refer to a range of modern technological tools that support learning. However, they are not merely educational instruments; they also serve as symbols carrying social meanings that influence the trainee's identity and prepare them for future professional roles in line with global advancements. Technological aids play a crucial role in enabling what George Herbert Mead, a pioneer of the interactive approach, described as forming the social self (Mead, 1934). Through these technological media, trainees can engage in diverse interactive worlds, whether with peers, instructors, or other participants, fostering social development and collaboration.

The trainee's use of computers, interactive applications, overhead projectors, distance learning programs, PowerPoint, Microsoft Teams, and other technological tools is crucial in shaping their professional development (Shunkov et al., 2022). These tools equip them with the technical expertise required in today's digital landscape and transform their understanding of what effective education looks like. Unlike previous generations of educators who relied on traditional methods such as chalkboards and rote memorisation, today's trainees are immersed in a more dynamic, interactive learning environment. Integrating modern technology encourages active participation, collaboration, and critical thinking, shifting the focus from passive reception of knowledge to active engagement (Laine & Nygren, 2016). As a result, trainees develop a more comprehensive skill set that meets the expectations of a rapidly evolving job market, where digital fluency is no longer optional but a fundamental requirement.

By mastering these technological tools, trainees can construct a professional identity that enhances their technical proficiency and reinforces their role as modern educators. This process of identity formation is crucial for motivating them to present themselves confidently and competently in educational settings. A teacher who effectively incorporates technology into their teaching practices is perceived as more innovative, engaging, and responsive to the needs of today's learners (Santos et al., 2019). Advanced tools such as interactive applications and distance learning platforms position these educators as leaders in the classroom, capable of fostering an engaging and enriching learning experience. In turn, their ability to integrate these tools effectively helps to build credibility. It strengthens their standing among colleagues, students, and the broader educational community, ensuring they are well-prepared for the demands of contemporary teaching.

Incorporating technology and digital tools into curricula and classroom activities fosters active participation and ensures alignment with global trends in digital education. However, as Achahbar & Khmaisi (2023) point out, the successful implementation of technological skills in the classroom depends largely on sufficient financial support to acquire the necessary equipment and media for all stakeholders: teachers, learners, and institutions.

Moreover, learning through technology broadens the scope of education by expanding the perspectives of both learners and teachers. Supplementary videos and digital resources enrich learning (Zinina et al., 2020). This educational model promotes the development of critical and reflective thinking, fostering responsibility, self-confidence, and collaboration among learners (Shivam & Singh, 2015).

d) The Skill of Good Cognitive Construction and Novelty of Training

The cognitive construction of data plays a crucial role in developing both motor and linguistic fluency, as well as mastering communication skills. According to Al-Asadi (2022), cognitive construction helps individuals process, organise, and apply new information to improve their intellectual and practical abilities. When learners engage in activities that challenge their thinking, such as problem-solving tasks and analytical exercises, they build the necessary skills to communicate effectively and interact with the world around them. This process enhances their cognitive abilities and boosts their capacity to understand and respond to complex situations, which is vital for their future educational and professional success. The ability to construct knowledge through critical thinking and application supports the development of well-rounded individuals who can confidently navigate various academic and real-world challenges.

To ensure the successful cognitive development of learners, it is essential to establish clear goals and provide learners with strategic methods to implement these goals in practical contexts (Kizilcec et al., 2017). When learners know what they are working towards and have a roadmap to guide them, they are more likely to remain motivated and engaged in their learning. Clear objectives provide a sense of purpose, helping students connect their academic efforts to real-world applications. Moreover, employing strategic learning methods that focus on cognitive construction allows students to develop skills that are transferable across disciplines and professions (Wang et al., 2014). This approach encourages learners to think critically about the information they encounter, apply it in new contexts, and reflect on their learning journey, fostering a deeper understanding of the material and its relevance to their future roles.

However, the development of cognitive construction depends on active engagement with content and requires an assessment system that promotes self-reflection and critical thinking. Traditional assessments based on memorisation and repetition do not adequately measure the depth of understanding or the ability to apply knowledge in real-world situations (Al-Omari et al., 2024). Instead, assessments should encourage learners to evaluate their thinking processes and critically examine their learning strategies (Zeng et al., 2018). This can be achieved by designing tests focusing on problem-solving, analysis, and application rather than simply recalling facts. By incorporating rewards and assessments that stimulate self-critical thinking, educators can foster an environment where learners actively engage in knowledge construction, essential for long-term cognitive growth.

Fostering good cognitive construction in learners requires a balance between providing clear, strategic goals and ensuring that assessments promote higher-order thinking. This approach strengthens cognitive abilities and encourages creativity and innovation, preparing learners to face the challenges of an ever-evolving educational and professional landscape. By emphasising cognitive construction and self-reflection, educators can help students develop the skills needed to succeed in their future careers and contribute meaningfully to their communities.

4. IMPLICATIONS AND CONTRIBUTIONS

4.1 Reseach Implication

This study has significant implications for teacher training quality in Morocco, particularly in equipping future educators with transversal skills that support more innovative and effective teaching methods. The findings highlight the importance of adopting modern pedagogical approaches integrating communication skills, technology, and critical thinking into teacher training programs. These findings imply the need for more structured interventions within the curriculum to foster transversal skills, ensuring that teacher trainees are better prepared to face classroom challenges and ultimately contribute to the long-term improvement of educational quality in Morocco.

4.2 Reseach Contribution

This study contributes to the ongoing discourse on teacher training by emphasising the critical role of transversal skills in enhancing educational quality. Focusing on integrating communication, digital literacy, and critical thinking into teacher preparation programs provides valuable insights into how these skills can be incorporated into curricula to foster more effective teaching practices. The research also highlights the necessity of updating traditional pedagogical approaches to meet the evolving needs of the 21st-century labour market, offering actionable recommendations for policymakers and educators to improve teacher training programs. Furthermore, the study serves as a basis for further exploration into the impact of transversal skills on teacher performance and educational outcomes, especially in the context of global educational advancements.

5. LIMITATIONS AND FUTURE RESEARCH DIRECTIONS

5.1 Reseach Limitations

One limitation of this study is the relatively small sample size of teacher trainees and trainers from a single educational institution, which may not fully represent the broader context of teacher training programs in Morocco or other countries. Additionally, the research primarily relies on self-reported questionnaire data, which could introduce bias or inaccuracies in the responses. The study also focuses on the immediate impact of transversal skills on teacher training, without considering long-term effects or potential differences across various teaching disciplines. Furthermore, the study's scope is limited to the CRMEF Sidi Kacem centre, and its findings may not be directly applicable to other training centres with different infrastructure or pedagogical practices.

5.2 Recommendations for Future Research Directions

Future research should explore the long-term impact of transversal skills on teacher effectiveness and student outcomes across a broader range of educational institutions and regions to provide a more comprehensive understanding of their value. It would be beneficial to conduct longitudinal studies to track the development of teachers' professional skills over time and assess how these skills influence their teaching practices and student engagement in the classroom. Additionally, future studies could investigate the specific role of technology integration in enhancing transversal skills and its relationship with teaching quality. Expanding the research to include diverse teaching disciplines and comparing different pedagogical models could offer deeper insights into how transversal skills can be universally applied in teacher training programs.

6. CONCLUSION

In conclusion, improving the performance of educational actors requires a paradigm shift away from traditional pedagogical methods towards more modern approaches that integrate contemporary skills into the teaching-learning process. This shift is especially crucial for enhancing communication skills, embracing digitalisation, and fostering knowledge building through continuous evaluation. By incorporating these modern strategies, educators can adapt to the evolving educational landscape, creating more dynamic and effective teaching and learning environments. These strategies provide the tools needed for both students and teachers to thrive, ensuring that education remains relevant and impactful in a rapidly changing world.

Educational actors must consistently evaluate and improve their practices, identifying challenges and experimenting with evidence-based solutions. This ongoing cycle of assessment and adjustment helps uncover opportunities to enhance student outcomes and academic performance. This process extends beyond simply incorporating new teaching techniques; it demands a deep commitment to continuously evolving and refining existing methods based on real-time feedback and data-driven insights. Educators should also focus on conducting interventional or procedural research, particularly in the development of soft skills, as these are essential for fostering well-rounded learners. By examining how various teaching strategies impact student engagement, collaboration, and emotional intelligence, educators can identify effective ways to support individual learning needs, bridge gaps in the educational experience, and create an inclusive and dynamic classroom environment. This proactive approach ensures that educational practices are always aligned with the evolving demands of both students and society, ultimately contributing to the creation of a more resilient and future-ready educational system.

The goal is for educators to offer well-informed proposals that address the shortcomings and failures observed within the educational system. These proposals, grounded in thorough analysis and research, aim to tackle the challenges identified by teachers or educational teams. By focusing on evidence-based practices and the development of soft skills, educational institutions can foster more responsive, innovative, and impactful teaching methods. Such a shift will not only improve student outcomes but will also empower educators to create a more engaging, relevant, and effective learning environment, contributing to the long-term success of both students and the educational system as a whole.

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Author Contribution Statement

All authors discussed the results, contributed to the final manuscript, and approved the final version for publication. Toufik Faik: Conceptualization, Design, Methodology, Writing - Original Draft, Performed data collection and Analysis, Interpretation of the results. Abdelaziz El Hammouchi: Conceptualization and Writing - Review & Editing,

Conflict of Interest Statement

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Ethical Approval Statement

The authors declare that this study was conducted with due regard for research ethics, including obtaining approval from the institution. This includes respecting the autonomy of participants, maintaining confidentiality of data, and ensuring their safety and well-being, in accordance with applicable research ethics guidelines.

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