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Professional Ethics and Teaching for Change in the 21st-Century African Schools: The Roles of Teachers' Professional Development and Curriculum Evaluation

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Abstract

Teaching is an ancient, but respected and ethical profession that has metamorphosed over time, as it struggles to compete with other professions, due to economic and technological changes and advancements. If the objectives and the expected standard of the profession are to be attained, especially in this 21st century, concerted efforts need to focus on enhancing and sustaining teachers' professional ethics, which have been given diverse definitions in the literature. This paper is a review of and a reflection on (i) What defines Teachers' professional ethics in Africa? (ii) What changes have the 21st century brought into the teaching profession in Africa? (iii) What is the role of professional development programmes on teachers' professional ethics and teaching in Africa? (iv) What is the role of curriculum evaluation on teachers' professional ethics and teaching in Africa? Underpinned by the Moral Development Theory, the study utilised a qualitative systematic literature review methodology. Findings indicate that African law systems, cultural norms, and educational settings define teachers' professional ethics in Africa; the 21st century has brought a drastic change to the teaching profession in Africa as it has led to various teaching innovations, new pedagogical demands, changes in the education structure, and technological improvements; professional development programmes enhance teachers' ethical awareness, reasoning, and decision-making; curriculum evaluation impacts teacher development, accountability, instructional methods, professional ethics, and students' learning outcomes. The paper concludes that for African schools to be up to date with the demands of the 21st century, ethics of the teaching profession and teaching should be pursued and positively transformed through teachers' professional development and curriculum evaluation. Suggestions for teacher education and curriculum development are highlighted.

Keywords: African schools, Curriculum evaluation, 21st century, Professional ethics, Teachers' Professional Development.

Introduction

Teaching has been acclaimed to be the “mother” of all professions. Through the art and act of teaching, all professions, such as those in Medicine, Pharmacy, Engineering, Agriculture, and Sciences, to mention but a few, are birthed via the teaching process by a teacher. Every society, irrespective of contexts, would, at one time or the other, require the services of teachers to teach their citizens to become literate, up-to-date, skillful, knowledgeable, functional, ethical, and responsive to societal needs and national development (Blignaut, 2024; Sathorar & Blignaut, 2021). Thus, the relevance of the teaching profession cannot be overemphasised, especially in this era of global dynamics, industrialisation, technological advancement, and digitalization (Fadiya, 2020; Babalola & Fadiya, 2016; Osiesi et al., 2024). For the world to remain peaceful and progressive, teachers who are specially trained to pilot and sustain the teaching profession must continue to teach, instruct, and inform the world’s citizens so they can adapt to the current world dynamics and those of the future still unknown. Aside from these hallmarks of teaching as a profession, it is enshrined in professional ethics and adaptability for change and innovations. This paper, therefore, provides insights into the roles of teachers’ professional development and curriculum evaluation for the promotion of professional ethics and teaching for change in 21st-century African schools.

Teaching, according to Rajagopalan (2019), is the process by which a person imparts information or skills to another. Edmund Amidon, as cited in Rajagopalan (2019, p.1), defines teaching as “an interactive process, primarily involving classroom talk which takes place between a teacher and a learner (or learners) and occurs during certain definable activities”. However, we define teaching as the procedures undertaken by an individual who is more informed, skilled, and experienced to transmit, impart, or inform (empower) another individual with such skills, knowledge, or experiences in the simplest ways. The teaching process is complex and involves many elements, such as the interactions, methods, and beliefs that influence the learning environment. Fundamentally, teaching can be viewed as an intentional process of interpretation and communication in which teachers interact with students to support their learning. This viewpoint highlights how important it is for teachers to have a conception of teaching because it has a big impact on both their practices and learners’ learning outcomes. Literature supports that teaching is an act, an art, and a science (Brookfield, 2017; Jenkins, 2015; Lang, 2015; Lupton, 2013; Mennitt, 2019; Tirri & Toom, 2020). It is a routine act to expand experiences, knowledge, and abilities. As an artistic undertaking, it highlights the teacher's inventiveness and creativity in designing a productive learning environment for students. As a science, it clarifies the systematic, procedural, logical, or mechanical steps that must be followed to achieve a set goal.

The professional ethics of teachers are fundamental to the teaching profession's integrity. Teaching (as well as teachers who execute the teaching processes) should be the most ethical. Ethics, according to Aydın (2006), Boon (2023), and Shapira-Lishchinsky (2019), should guide the teaching profession, which was long ignored (Barrett et al., 2006). However, it has its ethical guidelines (National Education Association, 2020). These include professionalism, justice, responsibility, equality, upholding a safe and healthy work environment, honesty, non-corruption, integrity, objectivity, trust, professional commitment, continuous improvement, respect, and the efficient use of resources. To better prepare themselves for the ethical challenges of teaching, teachers and teachers' training and development institutes need to participate in continuing ethical conversations and training because of the evolving global educational landscape. A national ethical code for teachers and the curriculum is the foundation for teachers’ professional ethics in most countries (Tirri & Kuusisto, 2022). Koç and Fidan (2020) and Şahin and Yüksel (2021) assert that ethical teachers ought to act and conduct themselves morally by prioritising people, prioritising justice, consistency, tolerance, and strength in communication, as well as by placing professional values above personal values. According to Laliberté et al. (2015), teachers lack ethical training, emphasising the necessity of ethical education training and professional development for teachers to guarantee that they can successfully teach morality and encourage moral behaviour even among their students.

Teachers' professional development refers to continuing education and training programmes to improve teachers' abilities, skills, knowledge, and efficacy in the classroom and educational processes (Darling-Hammond et al., 2017; Osiesi, 2020; 2022; 2024). It is vital for enhancing teaching methodologies and students' general outcomes. It includes an array of educational experiences for teachers, ranging from conferences, workshops, and seminars to more casual ones like peer work and independent study (Darling-Hammond et al., 2017; Osiesi, 2024). Professional development for teachers is important since it results in better teaching strategies and directly affects the learning and performance of students (Osiesi, 2020; 2024; Darling-Hammond et al., 2017). Opportunities for continuous learning assist teachers in meeting the varied requirements of their learners and adjusting to the ever-changing demands of education (Darling-Hammond et al., 2019; Henry & Namhla, 2020). Teachers' professional development will be ineffective if the curriculum for teacher training, development, and teaching practice is insufficient or misaligned with current and future learning expectations.

Curriculum evaluation necessitates an educational system that is efficient and effective. According to Reed (2011), curriculum evaluation is a methodical procedure that evaluates educational curricula' quality, efficacy, and relevance. It is an essential procedure

that guarantees that educational programmes are efficient, pertinent, and able to satisfy the various needs of students. It also plays a crucial role in guaranteeing that educational programmes fulfill their intended objectives and adjust to the changing needs of society and students (Ifarajimi, 2023). According to Ifarajimi (2023), the main goals of curriculum evaluation are to determine areas for improvement, evaluate the effectiveness of the curriculum, and assist in decision-making, so it can favourably meet the needs of the 21st century.

Chu et al. (2017) contend that rapid technological innovations and proliferation mark the 21st century. As a result, there is a demand in the labour market for people with advanced digital, analytical thinking, and communication abilities (Levy & Murnane, 2012). According to Sümen and Çalışıcı (2017), students must acquire a set of skills, knowledge, and abilities known as 21st-century skills to thrive in both the workplace and in life. These skills fall into three categories: life skills (adaptability, initiative, social skills, productivity, and leadership), literacy skills (information, media, and technological literacy), and learning skills (critical thinking, creative thinking, collaboration, and communication). To effectively carry out the teaching requirements, 21st-century education demands creative and adaptable teachers who are rooted in the art and act of problem-solving, collaboration, critical thinking, strong communication skills, and creativity (Diquito et al., 2022; Valtonen, 2017).

The Moral Development Theory (Kohlberg, 1984), which highlights the development of moral reasoning via multiple stages, provides the theoretical foundation for this study and can be used to comprehend how teachers form their ethical frameworks. Teachers' understanding of ethical practices in education is shaped by the phases of moral reasoning they go through as they gain experience. According to Kafi et al. (2018), moral reasoning and teaching experiences have an impact on teachers' views of professional ethics. This is essential for creating an atmosphere in which teachers' morality plays a major role in both decision-making and instruction. In his discussion of the value of codes of professional conduct in teacher education, Maxwell (2020) makes the case that these morality codes (ethics) help teachers navigate the challenging circumstances they may face in the workplace and provide a basis for moral behaviour. Moreover, Blignaut (2024) and Chapman et al. (2013) argue that ethical rules must not be the only thing teachers follow; they must also live out values like honesty, compassion, and justice.

Considering the paucity of empirical literature on what constitutes teachers' professional ethics in Africa, and because of Education 5.0 expectations from current practicing teachers, exploring these teachers' professional development roles and curriculum evaluation is timeous. Against this backdrop, this study interrogates the extant literature (coupled with authors' insights and experiences) on the roles of teachers' professional development and curriculum evaluation in promoting professional ethics and teaching for change in 21st-century African schools. Given this, we intend to provide answers to the following research questions:

1. What defines Teachers' professional ethics in Africa?
2. What changes have the 21st century brought into the teaching profession in Africa?
3. What is the role of professional development on teacher's professional ethics and teaching in Africa?
4. What is the role of curriculum evaluation in teacher's professional ethics and teaching in Africa?

Literature Review

Conceptual Framework

Fig. 1 indicates the framework guiding this study. Teachers' training and certification institutions are to dictate and promote teachers' professional ethics. This can be achieved via the interplay of professional development and curriculum evaluation, giving rise to teachers who are fully equipped ethically for the teaching profession, with qualities such as dignity, truthfulness, fairness, responsibility, competence, and collaboration, which are the hallmarks of a 21st-century teacher.

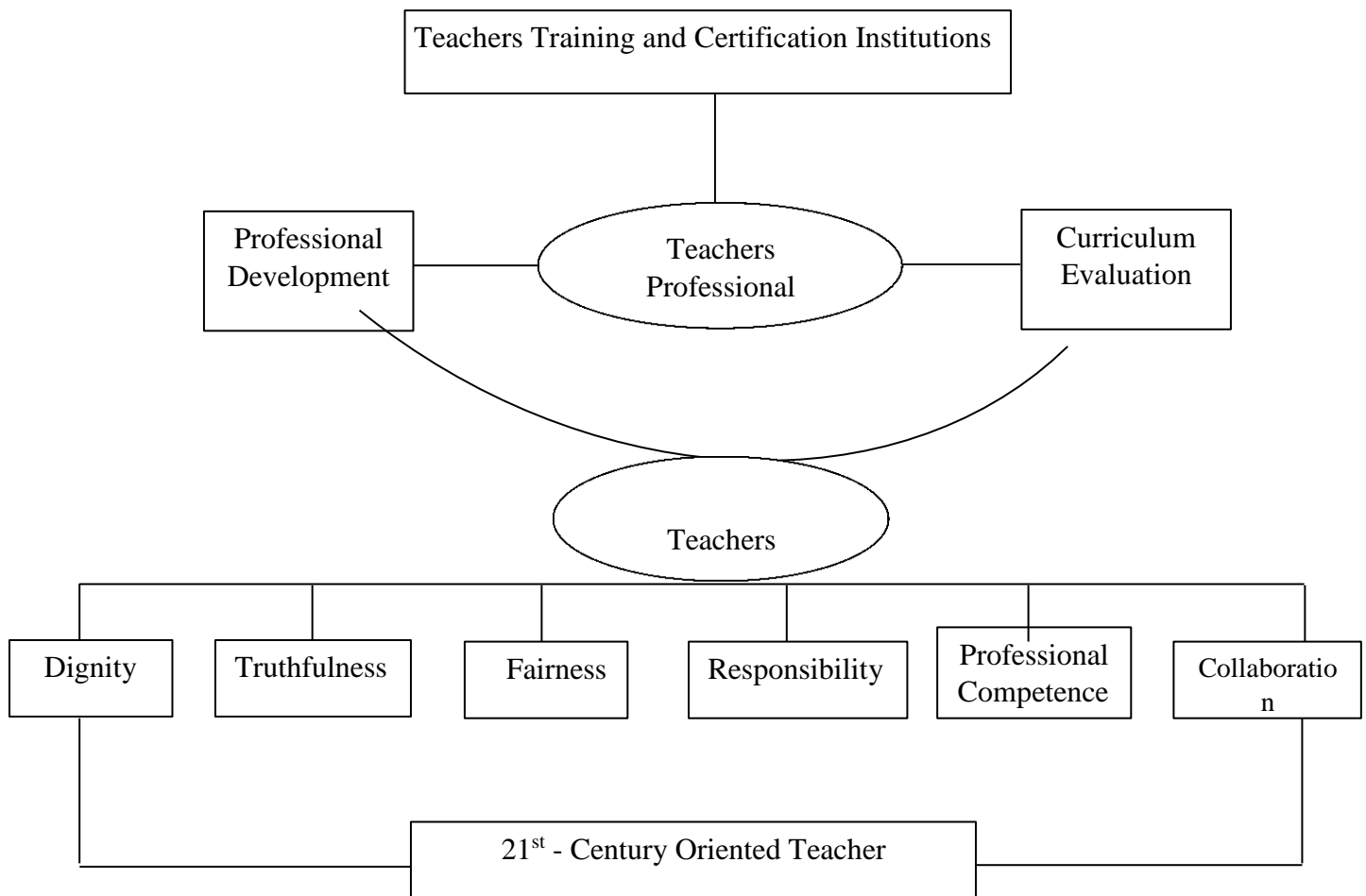


Figure 1

Source: The Authors

The Teaching Profession

Torres-Ayala (2010) asserts that personal and professional experiences influence teaching as a profession. There seems to be a growing recognition that teaching is a dynamic process that needs to change to meet the demands of modern education, especially considering improvements in technology. According to Xu (2016), using multimedia technology in teaching methods is imperative to meet 21st-century educational goals in the current technological era. These innovations have the potential to revolutionise traditional teaching modes and improve student engagement. Teachers play a more important role than just imparting knowledge; they also must create surroundings in the classroom that motivate and engage their students. Tendinha et al. (2021) stress that to create authentic teaching-learning environments that have a direct impact on student's motivation and achievement, teachers must follow well-established intervention protocols. This is consistent with the findings of Kalin and Šteh (2015), who contend that the emphasis should be shifted from teachers' actions to what students observe and encounter in their learning settings. As the Learning Experience Inventory (Wong et al., 2014) makes clear, the clarity with which students perceive their learning experiences is a critical component of instructional efficacy, which a professional teacher must ensure.

Teachers' Professional Ethics

Teachers are guided in their professional conduct, decision-making, and relationships with students, colleagues, and the community by a set of moral principles and norms known as 'Teachers' Professional Ethics (TPC)'. Professional ethics is required for building teachers' integrity, respect, and trust in learning environments and society at large; in the past, these were the key characteristics of a teacher's identity, but we are unsure if this still holds in this dispensation. A common understanding and consensus on ethical norms in teaching are essential, as evidenced by the evolution of discourse around teachers' professional ethics (Şahin & Yüksel, 2021), and this can be well advanced by a clear definition of what 'professional ethics' in education connotes (Maxwell et al., 2016). To effectively address the theoretical and practical aspects of teacher and teaching ethics, we argue that teachers, irrespective of their

contexts or personality, must live up to moral standards in 'all of their interactions (both within and outside his or her immediate society).

According to Yildiz (2022), teachers need to have a strong sense of diplomacy and service to effectively communicate ethical principles and encourage character education in their students, as students' ethical behaviour, sense of morality, and law-abiding tendencies are best imbibed from their classroom experiences and their interactions with teachers, who should be their ethical and moral model/icon (Pinto et al., 2018). Teachers are therefore viewed as moral role models whose moral behaviour greatly impacts students' moral growth. Several studies have demonstrated how moral reasoning, and sensitivity may be improved in learners through excellent ethics education. Khatiban et al.'s (2018) study found that the use of problem-based learning in ethics education greatly enhanced nursing students' capacity for moral thinking. This is consistent with research by Ghoozlu et al. (2023), who contend that peer interactions and discussions in ethics education might improve students' moral sensitivity and decision-making ability. Since the techniques used to teach ethics are just as important as the teacher teaching the subject, these teachers must possess these ethical traits and the necessary training and competency in ethical instruction.

Professional Teacher's Development

Professional development for teachers is a crucial part of educational reform and improvement to increase student learning outcomes, as it focuses on improving teachers' practices, knowledge, and skills (Darling-Hammond et al., 2017; Osiesi, 2020, 2023). Formal training, collaborative learning, and involvement in professional learning communities (PLCs) are a few ways that this development might occur (Darling-Hammond et al., 2017; Henry & Namhla, 2020). Learning opportunities for teachers, according to Pancucci and Cornett (2011) and Osiesi (2024), offer a strong foundation for improving schools by encouraging teacher cooperation and cross-fertilisation of ideas, which improves instructional strategies and student learning outcomes. Khun-Inkeeree et al. (2023) further mentioned that effective teacher professional development fosters their commitment to teaching and teamwork, improving teaching effectiveness and student success.

Chauraya and Barmby (2022) and Masekoameng (2015) assert that teachers must engage in ongoing professional development to enhance their instructional practices and adjust to the ever-changing demands of the classroom. Studies show that professional development ought to be concentrated on subject areas and strongly correlated with teachers' day-to-day work (Chauraya & Barmby, 2022; Hayes et al., 2023; Walton et al., 2019). According to Parise and Spillane (2010), professional development initiatives have a higher chance of significantly modifying teachers' existing teaching strategies when applied to their everyday tasks. Furthermore, Hennessy et al. (2015) and Andini (2024) emphasise how collaborative learning environments, where teachers can exchange knowledge and pedagogical practices, benefit less experienced teachers greatly. We argue that through professional development and training programmes, teachers can become more informed and practical about the ethics of the profession and more innovative ways of teaching.

Methodology

For this study, we utilised a qualitative systematic literature review methodology. In addition to synthesising the body of current literature and facilitating a deeper comprehension of this study's concerns, this approach intertwines the authors' thoughts and reflections with the literature. This entailed a thorough search, appraisal, and synthesis of existing research as well as reflective practice (Calabria & Bailey, 2021). Through this approach, we provide a transparent framework for integrating and evaluating the findings of past studies (Falcón-Linares, 2023; Xiao & Watson, 2017) and lay the groundwork for future research (Snyder, 2019). We reviewed the literature using search terms such as "Professional ethics", "Practicing teachers", "Teachers", "Teaching", "Curriculum evaluation", "21st-century", "21st-century changes", "East Africa", "West Africa", "North Africa", "South Africa" and "Africa", in Google Search Engine.

Our choice of articles was mainly based on studies on this study's focus, conducted within Africa and published in Journals, Books, and conference proceedings. We evaluated the results of these reviews and interpreted what they imply or seem to imply by our experiences and views as experienced practicing teachers cum academics. To increase the dependability and credibility of findings from the study, we followed the Enhancing Transparency in Reporting the Synthesis of Qualitative Research (ENTREQ) guidelines. We also used a pluralistic approach called "Reflexivity" to integrate and incorporate our various and varied points of view (Cooper & Burnett, 2006; Frost et al., 2010; Tong et al., 2012).

Findings

RQ 1: What defines Teachers' professional ethics in Africa?

The moral precepts and norms that direct teachers' behaviour in their official capacities are referred to as teacher professional ethics. A confluence of African law systems, cultural norms, and educational environments probably impacts these ethics. Comprehending these moral precepts is essential to cultivating a constructive educational atmosphere and guaranteeing responsibility in teaching methodologies. In Africa, the cultural environment greatly impacts how teachers behave (Oduol & Cornforth, 2019). In East Africa, a teacher's commitment to integrity, respect, and ongoing learning within the classroom defines their professional ethics. For Kenyan

teachers, the Teachers' Service Commission's Professional Code of Ethics acts as a framework (Oduol & Cornforth, 2019). Given this cultural context, it is important to have a sophisticated awareness of the moral conundrums that teachers encounter as they attempt to reconcile old beliefs with contemporary standards for education (Ayenalem et al., 2022).

Comparably, research from Northern Africa indicates that professional misbehaviour is common among teachers, emphasising the necessity for strong ethical standards to deal with problems like financial mismanagement and absenteeism (Mabagala, 2017; Shuma et al., 2024), and for teachers' accountability (Shuma et al., 2024). In West Africa, cultural context is pivotal to teachers' professional ethics (Chapman et al., 2013). In South Africa, teachers' ethical behaviour is significantly shaped by the Ubuntu philosophy, which emphasises community values and interdependence (Beets, 2012; Mugumbate et al., 2023). These are well documented by the SACE (South African Council for Educators) Code of Professional Ethics framework (Kimathi & Rusznyak, 2018; Mthiyane & Mudadigwa, 2021). This code of ethics guides teachers in maintaining moral standards in their teaching tasks and fosters the dignity of the teaching profession (Kimathi & Rusznyak, 2018).

RQ 2: What changes have the 21st century brought into the teaching profession in Africa?

The advent of the 21st century has brought notable changes in the African teaching space, mostly due to the development of new pedagogical demands, shifting educational paradigms, and technological improvements. The incorporation of 21st-century skills into educational processes has been the defining feature of these shifts. These skills include communication, critical thinking, creativity, and collaboration (Bolat, 2024). To improve learning outcomes and student engagement, teachers must now integrate digital tools and resources into their lesson plans. In addition to changing educational approaches, this incorporation of technology has presented difficulties for teachers, who need to constantly refresh their knowledge and abilities to stay up with the speed at which technology is evolving (Maba et al., 2023; Shafie et al., 2019).

Today, teachers need to acquire technological pedagogical content knowledge (TPACK) because 21st-century teaching and learning require the successful integration of technology, pedagogy, and content knowledge (Shafie et al., 2019). A reorientation of teacher education programmes is required to better educate teachers for the evolving educational landscape (Maba et al., 2023; Johns & Sosibo, 2019). One such programme is the Change Project Approach (CPA), which aims to provide aspiring teachers with the socio-ecological knowledge and abilities required for 21st-century teaching and sustainable living (Urenje et al., 2021). Still, most teachers in Africa are not yet equipped with the requisite 21st-century skills, as they have been hampered by the training they received from the traditional training and curriculum (Bolat, 2024; Septiana et al., 2023).

RQ 3: What is the role of professional development in teachers' professional ethics and teaching in Africa?

Professional development opportunities can help teachers cultivate a culture of ethical consciousness. Integrating ethics training into the teachers' education programme is crucial to enhancing their ethical awareness, along with the need for developmental opportunities that connect theory and practice (Ghiatau, 2024; Shuma, 2024; Ya & Kong, 2019). To improve teachers' ethical standards and instructional efficacy, teachers must participate in continuous professional development (CPD) because of the emerging changes in the educational system. Studies reveal that teachers' ethical reasoning and decision-making can be considerably impacted by professional development training programmes that incorporate professional ethics modules (Ghiatau, 2024). Teachers must be ethically competent to make moral decisions, and this is achieved by providing them with opportunities for focused professional development (Ghiatau, 2024).

Teachers can have a better awareness of their duties to students, coworkers, and the community at large by taking part in professional development programmes that prioritise ethical norms. CPD can also strengthen their integrity and respect for others, raise ethical standards, and boost teachers' self-efficacy and general competence in the classroom (Rweyemamu & Kamugisha, 2022). Teachers who participate in CPD are more likely to implement cutting-edge pedagogies and enhance their teaching strategies (Najafabadi et al., 2021). Professional development can result in better student outcomes and a more dynamic learning environment by providing teachers with the knowledge and assurance to make the necessary adjustments for positive change (Osiesi, 2020; 2024).

RQ 4: What is the role of curriculum evaluation on teachers' professional ethics and teaching in Africa?

The evaluation of curricula is paramount in maintaining alignment with educational goals and creating an ethical teaching environment in educational systems. Teacher development, accountability, instructional methods, and professional ethics are impacted by curriculum evaluation. Effective curriculum evaluation processes provide critical feedback that informs teachers about the strengths and weaknesses of their instructional practices, which is essential for nurturing a culture of continuous improvement and ethical responsibility (Moore et al., 2021; Shawer, 2010). When teachers' input is considered in curriculum design or evaluation, their sense of ownership and ethical commitment to the educational process is fostered (Indahl et al., 2021; Voogt et al., 2016). According to Mpofu and Maphalala (2018), teachers' professional competence and capacity for meaningful student engagement can be greatly impacted by the inclusion of ethical considerations in the curriculum. Teachers are encouraged to collaborate, exchange best practices, and have professional conversations regarding moral instruction and student achievement through collaborative curriculum design and evaluation processes (Drake et al., 2014; Voogt et al., 2011).

Discussion

This study has provided pieces of evidence of what defines teachers' professional ethics in Africa, the changes the 21st century has brought into the African teaching profession, the impact of professional development programmes, and curriculum evaluation on teachers' professional ethics and teaching. The finding of this study reveals that African law systems, cultural norms, and educational settings define teachers' professional ethics in Africa. This implies that the term 'professional ethics' in Africa is defined by laws, customs, and traditions, as well as the education context where such professional ethics is to be exhibited and practiced (Ayenalem et al., 2022; Chapman et al., 2013; Mugumbate et al., 2023; Oduol & Cornforth, 2019).

The finding also indicates that the 21st century has brought a drastic change to the teaching profession in Africa as it has led to various teaching innovations, new pedagogical demands, changes in the education structure, and technological improvements in the field of education. Unlike the days when teaching and learning were conventional, the present teaching and learning transactions have been wrapped in educational technology and digitalisation. For Africa especially, the urgent need for teaching and learning transformation was laid bare by the COVID-19 pandemic, where it became evident that teaching must be beyond the traditional classroom space. More attention is being given to teaching and learning with ease and freer access to virtual classrooms and blended/e-learning platforms (Maba et al., 2023). The 21st century has necessitated the quest for improvement of Teachers' Technological Pedagogical Content Knowledge (TPACK) in many African nations, aimed at helping teachers become more effective and efficient in their teaching tasks (Shafie et al., 2019; Urenje et al., 2021).

The finding indicates that professional development programmes enhance teachers' ethical awareness, reasoning, and decision-making. They can also improve moral standards, fortify their integrity and regard for others, and increase teachers' self-efficacy and general competence in the classroom (Rweyemamu & Kamugisha, 2022). Teachers who engage in ongoing professional development programmes have an increased likelihood of incorporating innovative teaching practices and improving their instructional techniques, translating into students' higher academic success (Najafabadi et al., 2021). Because African teachers and schools are faced with challenges such as insufficient funding, restricted access to resources, and a lack of professional development opportunities (Maba et al., 2023; Johns & Sosibo, 2019), making available such programmes for their development is essential for improving their pedagogical knowledge, teaching efficacy and ethical standards (Johns & Sosibo, 2019).

The finding indicates that curriculum evaluation impacts teacher development, accountability, instructional methods, professional ethics, and students' learning outcomes. Evaluating the curriculum brings about its currency with the demands of the 'times', ensuring that the contents of such curriculum solve the immediate societal challenge (and possibly those of the future). Undoubtedly, several African curricula are stale, lacking the capacity to instill in both teachers and learners the 21st-century skills or those of the Fourth Industrial Revolution (4IRs) (Moore et al., 2021; Shawer, 2010). Also, to ensure that teachers remain professionally ethical, reviewing and infusing these ethical standards into the curriculum is best achieved through curriculum evaluation (Drake et al., 2014; Indahl et al., 2021; Voogt et al., 2011; 2016).

Conclusion

The teaching profession should remain "the model profession". It must have unequivocal ethical standards that reasonably define what the profession stands for or stands by. While Africa dreams of and tends to pursue a fully "Africanised" and "Indigenous" based education system, a good step, to begin with, is to eagerly support and uphold teachers' professional ethics, continuing professional development, and curriculum evaluation or re-evaluation. We suggest, therefore, that for the future of African education, African teacher unions and associations revisit and re-evaluate the supposed ethics of the profession, while monitoring teachers on the practice of this ethics. Education stakeholders in Africa must continue to vigorously fund and organise 'special' professional development and training programmes for teachers at all levels, with bias in Education 5.0 dictates. Curriculum specialists and developers should as a matter of urgency (and education emergency), consider evaluating the African curricula, across all levels of education in the continent, to update its content in line with what the future portends for the education system in the global space. Future research should consider an empirical inquiry into the specificity of the professional development support and curriculum transformation needed by African teachers and schools and the factors militating against teachers' professional ethics in the continent.

Declarations

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References

1. Andini, F. & Andriani, D. E. (2024). Analysis of educational leadership development at Salman al Farsi integrated Islamic school Yogyakarta. *Eduvest - Journal of Universal Studies*, 4(3), 1187-1199. <https://doi.org/10.59188/eduvest.v4i3.1091>
2. Aydın, İ. (2006). Eğitim ve öğretimde etik [Ethics in education and training] (2. Baskı). Ankara: Pegem A Yayıncılık.
3. Ayenalem, K.A., Abate, S.G., Ayalew, H.R., & Mengesha, J.A. (2022). Secondary school teachers code of ethics in Ethiopia: implications for policy and practice. *Heliyon*, 4;8(10):e10885. doi: 10.1016/j.heliyon.2022.e10885.
4. Babalola, N. A. & Fadiya, A.A. (2016). Access to internet and the use of electronic information resources among postgraduate adult education students of university of Ibadan. *International journal of continuing and non-formal education*, 8 (2), 247-372.
5. Barrett, D. E., Neal Headley, K., Stovall, B., & Witte, J. C. (2006). Teachers' perceptions of the frequency and seriousness of violations of ethical standards. *The Journal of Psychology*, 140(5), 421-433. <https://doi.org/10.3200/JRLP.140.5.421-433>
6. Beets, P. (2012). Strengthening morality and ethics in educational assessment through Ubuntu in South Africa. *Educational Philosophy and Theory*, 44(sup2), 68-83. <https://doi.org/10.1111/j.1469-5812.2011.00796.x>
7. Blignaut, S. (2024). An Autoethnographic Account of Why an ‘Ethics of Care’ Matters. *Critical Reflections on Teacher Education in South Africa*; a book edited by Ramrathan L., Maistry, S. & Blignaut, S.; Palgarve Macmillan. Pg. 57-76.
8. Bolat, Y. & Deneme Gençoğlu, S. (2024). Integration of 21st century skills into secondary school English classes and the challenges faced by teachers. *International Journal of Contemporary Educational Research*, 11(1), 36-54. <https://doi.org/10.52380/ijcer.2024.11.1.558>
9. Boon, H. J. (2023). Applications of codes of teacher ethics in the context of anthropogenic climate change. *Teachers and Teaching*, 30(3), 341–360. <https://doi.org/10.1080/13540602.2023.2282490>
10. Brookfield, S. (2017). *Becoming a Critically Reflective Teacher*. San Francisco: Jossey-Bass.
11. Calabria, V. & Bailey, D. (2021). Participatory action research and oral history as natural allies in mental health research. *Qualitative Research*, 23(3), 668-685. <https://doi.org/10.1177/146879412111039963>
12. Chapman, A., Forster, D., & Buchanan, R. (2013). The moral imagination in pre-service teachers' ethical reasoning. *Australian Journal of Teacher Education*, 38(5). <https://doi.org/10.14221/ajte.2013v38n5.8>
13. Chauraya, M. & Barmby, P. (2022). Features of a developing mathematics professional learning community and affordances for teacher learning opportunities. *Indonesian Journal of Educational Research and Review*, 5(1), 205-216. <https://doi.org/10.23887/ijerr.v5i1.44424>
14. Chu, S. K. W., Reynolds, R. B., Tavares, N.J., Notari, M. & Lee, C. W. Y. (2017). *21st Century Skills Development Through Inquiry-Based Learning: From Theory to Practice*. ebook. Springer. 10.1007/978-981-10-2481-8
15. Cooper, N. & Burnett, S. (2006). Using discursive reflexivity to enhance the qualitative research process. *Qualitative Social Work*, 5(1), 111-129. <https://doi.org/10.1177/1473325006061541>
16. Darling-Hammond, L. Hyler, M.E., Gardner, M. & Espinoza, D. (2017). *Effective Teacher Professional Development*. Research Brief. https://learningpolicyinstitute.org/sites/default/files/product-files/Effective_Teacher_Professional_Development_BRIEF.pdf
17. Darling-Hammond, L., Flook, L., Cook-Harvey, C., Barron, B., & Osher, D. (2019). Implications for educational practice of the science of learning and development. *Applied Developmental Science*, 24(2), 97–140. <https://doi.org/10.1080/10888691.2018.1537791>

18. Diquito, T., Anter, M. C.J., & Bulonos, N.J. (2022). A survey of 21st century skills acquisition among the preservice teachers of teacher education programs. *European Journal of Open Education and E-learning Studies*, Vol. 7 (2), 59-71.
19. Drake, C., Land, T., & Tyminski, A. (2014). Using educative curriculum materials to support the development of prospective teachers' knowledge. *Educational Researcher*, 43(3), 154-162. <https://doi.org/10.3102/0013189x14528039>
20. Fadiya A.A. (2020). Intricacies of Online Teaching and Learning for Primary School Pupils in a Post Pandemic Era. In K.O Ojokheta & K.O Kester, (eds) *Education Re-Engineering in the New Normal World*, Ibadan: John Archers, Pp 513-521. (FESTSCHRIFT)
21. Falcón-Linares, C., González-Yubero, S., Mauri-Medrano, M., & Cardoso-Moreno, M. J. (2023). Impact of social media on adolescence: mapping emerging needs to build resilient skills. *Societies*, 13(11), 238. <https://doi.org/10.3390/soc13110238>
22. Frost, N., Nolas, S., Brooks-Gordon, B., Esin, C., Holt, A., Mehdizadeh, L., ... & Shinebourne, P. (2010). Pluralism in qualitative research: the impact of different researchers and qualitative approaches on the analysis of qualitative data. *Qualitative Research*, 10(4), 441-460. <https://doi.org/10.1177/1468794110366802>
23. Ghiatau, R. (2024). Ethics for early education; core concepts for approaching ethical issues. *Revista Romaneasca Pentru Educatie Multidimensionala*, 16(2), 45-55. <https://doi.org/10.18662/rrem/16.2/845>
24. Ghoozlu, K. J., Vanaki, Z., & Kermanshahi, S. M. K. (2023). Ethics education: nurse educators' main concern and their teaching strategies. *Nursing Ethics*, 30(7-8), 1083-1094. <https://doi.org/10.1177/09697330231153685>
25. Hayes, K. N., Preminger, L., & Bae, C. L. (2023). Why does teacher learning vary in professional development? Accounting for organisational conditions. *Professional Development in Education*, 50(1), 108–128. <https://doi.org/10.1080/19415257.2023.2283433>
26. Hennessy, S., Haßler, B., & Hofmann, R. (2015). Challenges and opportunities for teacher professional development in interactive use of technology in African schools. *Technology, Pedagogy and Education*, 24(5), 1-28. <https://doi.org/10.1080/1475939x.2015.1092466>
27. Henry, C. & Namhla, S. (2020). Continuous professional development for inclusive ECD teachers in Chiredzi Zimbabwe: Challenges and opportunities. *Scientific African*, 8, e00270. <https://doi.org/10.1016/j.sciaf.2020.e00270>.
28. Ifarajimi, M.A. (2023). The Role of Curriculum Evaluation and Feedback in Improving Teaching and Learning Quality in Nigeria. *Sapientia Foundation Journal of Education, Sciences and Gender Studies*, 5 (2), 229 – 239.
29. Indahl, T., Ekker, M., Sindberg, G., & Pierret, C. (2021). “Science for all”: a case study of digitizing inquiry-driven professional development. *Creative Education*, 12(08), 1773-1782. <https://doi.org/10.4236/ce.2021.128134>
30. Jenkins, R. (2015). The Four Properties of Powerful Teachers. Advice: The Chronicle of Higher Education.
31. Johns, L. & Sosibo, Z. (2019). Constraints in the implementation of continuing professional teacher development policy in the Western Cape. *South African Journal of Higher Education*, 33(5). <https://doi.org/10.20853/33-5-3589>
32. Kafi, Z., Motallebzadeh, K., & Ashraf, H. (2018). University instructors' teaching experience and their perception of professional ethics: postulating a model. *International Journal of Instruction*, 11(4), 257-270. <https://doi.org/10.12973/iji.2018.11417a>
33. Kalin, J. & Šteh, B. (2015). Students' perspectives on significant and ideal learning experiences —a challenge for the professional development of university teachers. *Review of European Studies*, 7(12). <https://doi.org/10.5539/res.v7n12p21>
34. Khatiban, M., Falahan, S., Amini, R., Farahanchi, A., & Soltanian, A. (2018). Lecture-based versus problem-based learning in ethics education among nursing students. *Nursing Ethics*, 26(6), 1753-1764. <https://doi.org/10.1177/0969733018767246>
35. Khun-Inkeeree, H., Kasa, M. D., Sofian, F. N. R. M., & Yakob, W. R. W. (2023). Understanding new approaches to professional learning community practice and secondary school teacher motivation. *International Journal of Evaluation and Research in Education*, 12(2), 834. <https://doi.org/10.11591/ijere.v12i2.23644>

36. Kimathi, F. & Rusznyak, L. (2018). Advancing professional teaching in South Africa: lessons learnt from policy frameworks that have regulated teachers' work. *Education as Change*, 22(3), 1-25. <https://dx.doi.org/10.25159/1947-9417/4042>
37. Kohlberg, L. (1984). *The Psychology of Moral Development: The Nature and Validity of Moral Stages (Essays on Moral Development, Volume 2)*. Harper & Row
38. Laliberté, M., Hudon, A., Mazer, B., Hunt, M., Feldman, D. E., & Williams-Jones, B. (2015). An in-depth analysis of ethics teaching in canadian physiotherapy and occupational therapy programs. *Disability and Rehabilitation*, 37(24), 2305-2311. <https://doi.org/10.3109/09638288.2015.1015687>
39. Lang, J. (2015). *Waiting for Us to Notice Them. Advice: The Chronicle of Higher Education*.
40. Levy, F., & Murnane, R. J. (2012). *The new division of labor: How computers are creating the next job market*. Princeton, NJ: Russell Sage Foundation.
41. Lupton, M. (2013). Reclaiming the Art of Teaching. *Teaching in Higher Education*, 18 (2),156-166.
42. Maba, W., Mantra, I. B. N., & Widiastuti, I. A. M. S. (2023). Teachers of 21st century: teachers' roles, strategies innovation and challenges. *International Journal of Social Science*, 2(6), 2405-2412. <https://doi.org/10.53625/ijss.v2i6.5473>
43. Mabagala, S. (2017). Prevalence of professional misconduct in nzega district, tanzania public secondary schools. *African Journal of Teacher Education*, 5(1). <https://doi.org/10.21083/ajote.v5i1.3459>
44. Masekoameng, M. C. (2015). Distributed leadership in schools: enhancing diverse leadership qualities for success. *International Journal of Educational Sciences*, 10(03). <https://doi.org/10.31901/24566322.2015/10.03.01>
45. Maxwell, B. (2020). Codes of professional conduct and ethics education for future teachers. *Philosophical Inquiry in Education*, 24(4), 323-347. <https://doi.org/10.7202/1070690ar>
46. Maxwell, B., Tremblay-Laprise, A., Filion, M., Boon, H., Daly, C., Hoven, M. v. d., ... & Walters, S. (2016). A five-country survey on ethics education in preservice teaching programs. *Journal of Teacher Education*, 67(2), 135-151. <https://doi.org/10.1177/0022487115624490>
47. Mennitt, T. M., (2019). "Teaching as an Art and a Science: Student Engagement and the Classroom Experience in Secondary Math & Science Classrooms". *Education Doctoral Dissertations in Leadership*. 126. <https://researchonline.stthomas.edu/esploro/outputs/doctoral/Teaching-as-an-Art-and-a/991015132020703691>
48. Moore, N., Coldwell, M., & Perry, E. (2021). Exploring the role of curriculum materials in teacher professional development. *Professional Development in Education*, 47(2-3), 331-347. <https://doi.org/10.1080/19415257.2021.1879230>
49. Mpofu, N. & Maphalala, M. (2018). A comprehensive model for assessing student teachers' professional competence through an integrated curriculum approach. *The Journal for Transdisciplinary Research in Southern Africa*, 14(2). <https://doi.org/10.4102/td.v14i2.486>
50. Mthiyane, S. E. & Mudadigwa, S. (2021). The causes of ethical turpitude in schools: evidence from four schools in Gauteng, South Africa. *Interdisciplinary Journal of Education Research*, 3(2), 1-9. <https://doi.org/10.51986/ijer-2021.vol3.02.01>
51. Mugumbate, J. R., Mupedziswa, R., Twikirize, J. M., Mthethwa, E., Desta, A. A., & Oyinlola, O. (2023). Understanding Ubuntu and its contribution to social work education in Africa and other regions of the world. *Social Work Education*, 43(4), 1123–1139. <https://doi.org/10.1080/02615479.2023.2168638>
52. Najafabadi, M., Aroufzad, S., Mostahfezian, M., & Navidadham, M. (2021). Predicting self-efficacy based on professional ethics and professional development. *International Journal of Ethics & Society*, 2(4), 28-37. <https://doi.org/10.52547/ijethics.2.4.28>
53. National Education Association. (2020). Code of ethics. <https://www.nea.org/resource-library/code-ethics>
54. Oduol, T. and Cornforth, S. (2019). Ethical dilemmas in education: a case study of challenges faced by secondary school leaders in kenya. *Journal of Educational Administration*, 57(6), 601-614. <https://doi.org/10.1108/jea-05-2017-0060>

55. Osiesi, M. P. (2020). The import of professional development programmes for primary school teachers in Nigeria. *International Journal on Integrated Education*, 3 (10), 48-55. <https://doi.org/10.31149/ijie.v3i10.677>.
56. Osiesi, M. P. (2020). The import of professional development programmes for primary school teachers in Nigeria. *International Journal on Integrated Education*, 3 (10), 48-55. <https://doi.org/10.31149/ijie.v3i10.677>.
57. Osiesi, M. P. (2024). Evaluation of the Mandatory Continuing Professional Development Programme of the Teachers' Registration Council of Nigeria for Primary School Teachers in Ekiti State, 2011-2021. PhD Thesis submitted to the University of Ibadan, Ibadan, Nigeria.
58. Osiesi, M. P., Ayanwale, M.A., Akomolafe, O. D., Olayiwola-Adedaja, T.O., Olatunbosun, S.O., & Ariyo, S.O. (2024). Transforming Classrooms: How Professional Development and Teacher Attitudes drive Primary School Teaching Effectiveness. *Social Sciences and Humanities Open*, 10 (101099), 1-11. <https://doi.org/10.1016/j.ssaho.2024.101099>.
59. Osiesi, M. P., Odobe, V.T., Sanni, K.T., Adams, A.B., Oke, C. C., Omokhabi, U.S., & Okorie, N.C. (2022). An Assessment of the Impact of Professional Development and Training on Job Performance of Library Staff in Federal University Oye-Ekiti Libraries, Nigeria. *Library Management*, 43 (3/4), 228-239. <https://doi.org/10.1108/LM-10-2021-0091>.
60. Osiesi, M. P., Olatunbosun, S.O., Olayiwola-Adedaja, T.O., Okunade, A., Olayinka, F.O., Ajimuse, M.S., Irewole, M.O., Oderinwale, T.A., & Blignaut, S. (2024). "Perceptions of Preservice Teachers on Teacher Education Curriculum's Relevance and Adequacy for Graduate Transition into the Teaching Profession in Nigeria." *The International Journal of Pedagogy and Curriculum*, 32 (1): 141-164. doi:10.18848/2327-7963/CGP/v32i01/141-164.
61. Pancucci, S. and Cornett, K. (2011). Building teachers' capacities one teacher at a time within a learning community framework: a retrospective analysis. *Teaching and Learning*, 6(1). <https://doi.org/10.26522/tl.v6i1.376>
62. Parise, L. M. and Spillane, J. P. (2010). Teacher learning and instructional change: how formal and on-the-job learning opportunities predict change in elementary school teachers' practice. *The Elementary School Journal*, 110(3), 323-346. <https://doi.org/10.1086/648981>
63. Pinto, S. I. M., Assunção, M. R. S. d., & José, H. M. G. (2018). The responsibility of education in the construction of humanitude and an ethical attitude. *Nursing and Palliative Care International Journal*, 1(1), 11-13. <https://doi.org/10.30881/npcij.00003>
64. Rajagopalan, I. (2019). "Concept of Teaching." *Shanlax International Journal of Education*, vol. 7, no. 2, 5-8. DOI: <https://doi.org/10.34293/education.v7i2.329>
65. Reed, D.A. (2011). Nimble approaches to curriculum evaluation in graduate medical education. *J Grad Med Educ.*, 3(2):264-6. doi: 10.4300/JGME-D-11-00081.1.
66. Rweyemamu, J. & Kamugisha, J. (2022). The contribution professional codes of conducts on secondary education teacher's professionalism: a case of Bukoba District Council, Kagera region, Tanzania. *Journal of Humanities and Education Development*, 4(1), 182-189. <https://doi.org/10.22161/jhed.4.1.18>
67. Şahin, F. & Yüksel, İ. (2021). Meaning and Uniqueness of Ethics and Ethical Teacher Behaviors in the Teaching Profession. *Inquiry in education*, Vol. 13: Iss. 2, Article 2. <https://digitalcommons.nl.edu/ie/vol13/iss2/2>
68. Sathorar, H. & Blignaut, S. (2021). A critical approach to curriculum implementation: Reflecting on lecturer preparedness to be transformative intellectuals. *Interchange*, 52(3), 415-431.
69. Septiana, Y., Widayati, A., Wibawa, E., & Hakim, A. (2023). Teacher professionalism in facilitating students to have 21st century skills. *Dinamika Pendidikan*, 18(1), 88-95. <https://doi.org/10.15294/dp.v18i1.44543>
70. Shafie, H., Majid, F. A., & Ismail, I. S. (2019). Technological pedagogical content knowledge (tpack) in teaching 21st century skills in the 21st century classroom. *Asian Journal of University Education*, 15(3), 24. <https://doi.org/10.24191/ajue.v15i3.7818>

71. Shawer, S. (2010). Classroom-level teacher professional development and satisfaction: teachers learn in the context of classroom-level curriculum development. *Professional Development in Education*, 36(4), 597-620. <https://doi.org/10.1080/19415257.2010.489802>
72. Shuma, J. R., Anangisye, W. A., & Kinyota, M. (2024). Opportunities in promoting teacher ethics in Tanzania's public primary schools through quality school-based professional development programmes. *Quality Assurance in Education*, 32(3), 478-492. <https://doi.org/10.1108/qae-02-2024-0039>
73. Snyder, H. (2019). Literature review as a research methodology: an overview and guidelines. *Journal of Business Research*, 104, 333-339. <https://doi.org/10.1016/j.jbusres.2019.07.039>
74. Sümen, O. O. & Çalişici, H. (2017). Examining the 21st Century Skills of Secondary School Students: A Mixed Method Study. *Journal of Education & Social Policy*, Vol. 4, No. 4; 92-100.
75. Tendinha, R., Alves, M., Freitas, T., Appleton, G., Gonçalves, L., Ihle, A., & Marques, A. (2021). Impact of sports education model in physical education on students' motivation: a systematic review. *Children*, 8(7), 588. <https://doi.org/10.3390/children8070588>
76. Tirri, K. & Kuusisto, E. (2022). Teachers' Professional Ethics Theoretical Frameworks and Empirical Research from Finland. Brill. doi:10.1163/9789004532649_001
77. Tirri, K., & Toom, A. (2020). The Moral Role of Pedagogy as the Science and Art of Teaching. IntechOpen. doi: 10.5772/intechopen.90502
78. Tong, A., Flemming, K., McInnes, E., Oliver, S., & Craig, J. C. (2012). Enhancing transparency in reporting the synthesis of qualitative research: entreq. *BMC Medical Research Methodology*, 12(1). <https://doi.org/10.1186/1471-2288-12-181>
79. Torres-Ayala, A. T. (2010). "Work in progress — Future engineering professors' conceptions of learning and teaching engineering," 2010 IEEE Frontiers in Education Conference (FIE), Arlington, VA, USA, 2010, pp. S2G-1-S2G-2, doi: 10.1109/FIE.2010.5673413.
80. Urenje, S., Chauraya, M., & Chikunda, C. (2021). The change project approach: a response for reorienting teacher education to address education 2030 in Southern Africa – the case of Midlands State University, Zimbabwe. *Southern African Journal of Environmental Education*, 37. <https://doi.org/10.4314/sajee.v37i1.6>
81. Valtonen, T., Sointu, E. T., Kukkonen, J., Häkkinen, P., Järvelä, S., Ahonen, A., et al. (2017). Insights into Finnish first-year pre-service teachers' perceptions of their 21st century skills. *Education and Information Technologies*, 22(5), 2055–2069.
82. Voogt, J. M., Pieters, J. M., & Handelzalts, A. (2016). Teacher collaboration in curriculum design teams: effects, mechanisms, and conditions. *Educational Research and Evaluation*, 22(3–4), 121–140. <https://doi.org/10.1080/13803611.2016.1247725>
83. Voogt, J., Westbroek, H., Handelzalts, A., Walraven, A., McKenney, S., Pieters, J., ... & Vries, B. (2011). Teacher learning in collaborative curriculum design. *Teaching and Teacher Education*, 27(8), 1235-1244. <https://doi.org/10.1016/j.tate.2011.07.003>
84. Walton, E., Carrington, S., Sagers, B., Edwards, C., & Kimani, W. (2019). What matters in learning communities for inclusive education: a cross-case analysis. *Professional Development in Education*, 48(1), 134-148. <https://doi.org/10.1080/19415257.2019.1689525>
85. Wong, E., Kwong, T., & Thadani, D. R. (2014). The effects of student's perceptions of their learning experience on their approaches to learning: the learning experience inventory in courses. *Education Journal*, 3(6), 369. <https://doi.org/10.11648/j.edu.20140306.18>
86. Xiao, Y. & Watson, M. (2017). Guidance on conducting a systematic literature review. *Journal of Planning Education and Research*, 39(1), 93-112. <https://doi.org/10.1177/0739456x17723971>

87. Xu, L. (2016). Study on multimedia teaching and the reform of college physical education: evaluation of teaching effect. *International Journal of Security and Its Applications*, 10(2), 255-266. <https://doi.org/10.14257/ijisia.2016.10.2.23>
88. Ya, K. & Kong, Y. (2019). Research and reference on professional ethics development of American college teachers. *Proceedings of the 2019 3rd International Conference On Education, Management Science and Economics (ICEMSE 2019)*. <https://doi.org/10.2991/icemse-19.2019.116>
89. Yildiz, Y. (2022). Ethics in education and the ethical dimensions of the teaching profession. *Sciencerise*, (4), 38-45. <https://doi.org/10.21303/2313-8416.2022.002573>