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The Role of Teaching Competencies in Achieving Learning Competencies in Physical Education and Sports in Secondary School: A Comparative Study Between Algeria and Qatar

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Abstract: This study explores the role of teaching competencies in achieving learning outcomes in physical education across secondary schools in Algeria and Qatar. It emphasizes the increasing significance of instructional skills in shaping students' holistic educational experiences. The research identifies existing gaps in pedagogical competencies, particularly among Algerian physical education instructors, where socio-economic barriers hinder the implementation of merit-based educational initiatives. A mixed-methods design was adopted, integrating quantitative analysis with qualitative interviews. A total of 200 physical education teachers (100 from each country) were selected using stratified random sampling to ensure diverse representation by skill level and institutional type. Data collection involved structured questionnaires and in-depth interviews, focusing on teachers' self-assessments of their professional competencies. The results show that while teachers from both countries report confidence in lesson planning and delivery, substantial differences exist in technology use and student engagement strategies. Qatar's education system demonstrates more advanced integration of STEM-based practices, which correlate with improved student engagement (+25%), understanding of scientific concepts (+30%), and development of engineering-related skills (+35%). Gender-based differences in perceived teaching competencies were negligible. Further analysis indicates a positive correlation between teaching experience and perceived competency levels. Educators with more than ten years of experience rated their competencies the highest (Algeria: 4.5/5;

Qatar: 4.2/5). Moreover, professional development programs showed varied impact: Qatar's structured training was perceived as significantly more effective in enhancing STEM-related teaching competencies (92%) than Algeria's (55%). The study highlights the need for targeted professional development strategies that address local educational contexts and support teaching quality in physical education. It advocates for sustained collaboration between educators and policymakers to close competency gaps and cultivate inclusive, culturally responsive teaching environments. Future research should pursue longitudinal approaches and standardized tools to assess the long-term influence of teaching competencies on student learning outcomes.

Keywords: Teaching competencies, physical education, Algeria, Qatar, student engagement.

Introduction

The significance of education competencies in physical education has grown up markedly within contemporary educational situations, as they profoundly affect students' full learning experiences and outcomes (Djamel & Djamel, 2020). Teachers serve as the backbone of the educational framework, wielding considerable effect in molding students' knowledge, skills, and attitudes toward physical movement. Given this pivotal role, it is bossy for educators to cultivate advanced teaching competencies that effectively raising student engagement and incentive within the classroom (Al-Tawel & AlJa'afreh, 2017). These competencies can be broadly segmented into general competencies, specialized ones tied to specific subjects, and teaching-related skills that incorporate pedagogical knowledge necessary for effective instruction (Al-Tawel & AlJa'afreh, 2017).

In various global contexts, such as Algeria and Qatar, educational reforms have prioritized the enhancement of teachers' competency structures to meet modern demands (Faisal Saleh FreaH Al Jarrah, 2024). The worldwide transition towards competency-based education underscores dynamic teaching strategies rooted in practical applications of knowledge (Alkaaf et al., 2020). These reforms aim not only to elevate teacher effectiveness but also to ensure educational outcomes resonate with societal expectations and necessities.

Physical education programs encounter distinct challenges stemming from disparate instructional time allocations and the diverse backgrounds of teachers (Al-Arifi et al., 2021). This variability complicates efforts to clearly define what students are expected to learn within these programs (Graham, 2017). Furthermore, initiatives like the rollout of second-generation curricula advocate for a competency-based approach that strives to connect theoretical frameworks with real-world applications (Meddah et al., 2024).

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worldwide transition towards competency-based education underscores dynamic teaching strategies rooted in practical applications of knowledge (Alkaaf et al., 2020). These reforms goal not only to elevate teacher efficiency but also to ensure educational outcomes reverberate with societal expectations and necessities (Nathan, Lengkana, & Mulyanto, 2023).

Socio-economic and cultural influences play a crucial role in shaping the educational land in both Algeria and Qatar. Algeria, with its varied and historically rich cultural background, has experienced various educational transformations, mostly with the implementation of the second-generation curriculum, which pursues to align theoretical instruction with applied applications (Yang & Tongdecharoen, 2024). Socioeconomic differences, varying levels of supply allocation, and teacher training programs contribute to the efficiency of competency-based education within the country. On the other hand, Qatar has made significant steps in reforming its education system through general investment in teacher development, efficient curricula, and international collaborations. The country's promise to forward its educational framework aligns with its larger vision of economic diversification and knowledge-based societal development (Alkaaf et al., 2020).

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In summary, greedy and enhancing teaching capabilities in physical education is vital for fostering a robust educational setting that promotes student development across various dimensions. By considering the socio-economic and cultural effects in Algeria and Qatar, this comparative analysis will provide deeper insights into the effectiveness of competency-based physical education and its broader inferences for educational policy and training.

Research Problem

The teaching skills of physical education (PE) instructors are critical for promoting student learning and engagement (Chen et al., 2025). However, significant slits in these competencies can hinder educational outcomes, especially in Algeria and Qatar, where contrary educational frameworks and socio-economic conditions impact development and implementation. Research indicates that many PE educators lack fundamental pedagogical times, adversely affecting their teaching effectiveness (Cañadas et al., 2020). Additionally, Algeria faces challenges in adopting competency-based programs amid socio-economic difficulties (Ward & Cho, 2020).

Communication skills vital for active PE instruction are often overlooked, leading to inadequate teaching practices (Alkaaf et al., 2020). It is important to identify these faults in both pre-service and in-service teachers to well equip them with needed skills for quality instruction (Kovalchuk, Hnitetska, & Usachov, 2024). Furthermore, discrepancies in perceptions of teacher competency related to gender and experience complicate this issue (Al-Tawel & AlJa'afreh, 2017). Understanding these dynamics is critical for enlightening teacher education programs aimed at developing competent professionals who can meet the evolving demands of physical education across various cultural contexts (Abdelkader, Daho, & Bloufa, 2018).

This study seeks to explore how these aspects intersect within secondary education systems in Algeria and Qatar, converging on systematically enhancing explicit teaching competencies. The goal extends beyond individual teacher improvement to contribute meaningfully to broader educational reforms in physical education as a vital component of holistic student development.

The significance of this study is to focus on the impact of educational and social challenges faced by PE teachers in Algeria and Qatar on their teaching competence. This study aims to explore how these factors interact in the secondary education system and to work towards systematically improving teachers' teaching skills. The research goal is not limited to improving individual teachers' competence, but also to contribute to the broader reform of physical education as a key component in promoting the overall development of students.

1. What are the main deficiencies in the teaching skills of physical education teachers in Algeria and Qatar?
2. How do different socio-economic aspects affect the growth and implementation of physical education teacher education programs in the two countries?
3. What role does communication skill play in improving the efficiency of physical education teaching? What do physical education teachers reflect of its importance?
4. How do physical education teachers' acuities of teaching ability differ according to factors such as gender and work experience?
5. What are the applicable strategies to rally the teaching skills of physical education teachers and progress the quality of education in this arena?

Research Focus

The core investigation of this study revolves around the exploration of teaching competencies in physical education, set against the backdrop of two unique educational environments: Algeria and Qatar. This inquiry is forced by the understanding that a teacher's efficacy is intricately linked to their competencies, which span several domains, including pedagogical expertise, malleability, and specialized subject information (Abdelkader, Daho, & Bloufa, 2018). As highlighted in (Baumgartner, 2022), the recent paradigm swing to competency-based physical education teacher education (PETE) emphasizes the significance of not just professional knowledge but also teachers' abilities to observe, interpret, and make knowledgeable decisions in authentic teaching contexts.

Within this construct, the research aims to pinpoint essential competencies that affect the efficacy of physical education instructors (Fekih Zguir, Dubis & Koç, 2021). This includes delving into how cultural and institutional dynamics in Algeria and Qatar shape these competencies. For example, comparative analyses suggest that local educational policies can profoundly influence educators' perceived competence (Al-Tawel & AlJa'afreh, 2017). Additionally, the study intends to investigate how various demographic elements—such as gender and educational credentials—impact perceptions of competency among teachers in both nations (Klimakova et al., 2022).

Beyond merely identifying fundamental competencies, this research will scrutinize existing literature regarding educational practices in physical education to frame findings within broader pedagogical movements (Djamel & Djamel, 2020) and (Xie et al., 2020). In doing so, it seeks not only to shed light on variations in teaching methodologies but also to propose actionable insights for potential reforms within PETE programs (Kilborn, Lorusso, & Francis, 2016).

This emphasis will greatly enhance our understanding of how teaching competencies are implemented differently depending on regional contexts while laying a foundation for future advancements in training programs tailored specifically for physical education teachers.

Research Aim and Research Questions

The primary objective of this research is to delve into and evaluate the teaching competencies essential for physical education within the educational landscapes of Algeria and Qatar. By pinpointing

the fundamental competencies that educators ought to embody, this study aims to bridge existing gaps in current practices and improve the overall quality of physical education instruction. The scope of the research will encompass various categories of teaching competencies, including cognitive, performance-based, emotional, productivity-oriented, and personal skills.

To fulfill these aims, the study will craft specific research inquiries geared towards comprehending how these competencies are expressed in both educational settings. The first inquiry will seek to determine which teaching competencies are most prominently highlighted by physical education teachers in Algeria and Qatar. Next, the second inquiry will explore how cultural and contextual elements shape the evolution of these competencies across both nations. Finally, this investigation will aim to develop a comparative perspective on the efficacy of current pedagogical practices in physical education by assessing how effectively these competencies are woven into teacher training initiatives.

Through a qualitative approach anchored in a thorough review of pertinent literature and a comparison of the educational frameworks between the two countries, this study aspires to offer meaningful insights into enhancing teaching methodologies for physical educators. It seeks not only to spark academic discourse but also to furnish practical recommendations for policymakers and educators engaged in refining physical education curricula.

Literature Review

1. Effectiveness of Teacher Training in Physical Education

Teaching competencies are important for achieving actual teaching in physical education, about pedagogical, cognitive, and general competencies. Recent studies designate that these competencies are important for enhancing teaching skills and educating learning outcomes (Cañadas et al., 2020). However, much research lacks a thorough analysis of how these competencies are developed sustainably within teacher education programs.

Some studies indicate that incorporating these competencies into training curricula increases teacher effectiveness, but the challenge remains in achieving effective integration between theoretical knowledge and practical application (Baumgartner, 2022). For example, Djamel & Djamel (2020) demonstrated that developing teaching skills relies heavily on continuous training and practical application, which is lacking in some traditional training programs. Therefore, this research aims to fill this gap by exploring more integrated strategies that combine academic learning with field application (Khaddoor, Al-Amoush, & Eilks, 2017).

2. Integrating Technology into Physical Education Teaching

The integration of technology into education has become a prominent trend, as digital tools help improve teaching methods and enhance student engagement (Ibrahim et al., 2020). Recent studies indicate that the use of technology in physical education enhances theoretical understanding and increases student motivation. However, many studies have not adequately assessed the impact of technology on teachers' actual teaching skills development (Andriamampianina & Moussa, 2005).

For example, Ali et al. (2021) suggests that digital applications and augmented reality can provide a more interactive learning experience, but they require extensive teacher training to ensure their effective use. Furthermore, the lack of technical infrastructure in some educational settings poses an additional challenge. Accordingly, this research explores how to improve teachers' readiness to use technology in teaching through more effective training strategies (Lander et al., 2016).

3. Comparison between Algeria and Qatar in the development of teaching competencies

Comparisons between Algeria and Qatar in the development of teaching competencies reveal significant differences resulting from the educational contexts and policies in each country (Ward et al., 2024). Algeria trusts on an education system absorbed on comprehensive development, but it faces challenges in executing the competency approach due to a absence of resources and changing levels of teacher qualifications (McKown, Merica, & Egan, 2024). In contrast, Qatar has accepted a more modern approach, with important investments in teacher training and the practice of technology to improve teaching quality (Mustafa et al., 2024).

Although both countries face comparable challenges, such as a lack of resources and patchy teacher preparedness, Qatar has made faster progress toward assuming international educational standards, importance the need for more comprehensive restructurings in Algeria. Accordingly, this research pursues to analyze the strengths and faintness of both education systems and suggest viable solutions to enhance teaching skills in physical education (González-Rivas et al., 2024).

Based on the literature review, it is clear that developing teaching competencies in physical education faces multiple challenges, including a lack of effective training and the lack of integration of technology into the curriculum. The differences between countries in implementing the competency approach also reflect the impact of educational policies and infrastructure on teaching quality. This research seeks to provide practical solutions to these challenges by analyzing training strategies, integrating technology, and examining comparative experiences to improve physical education education globally.

Materials and Methods

1. Research Design

The research framework adopts a mixed-methods strategy, combining quantitative and qualitative approaches to understand teaching competencies in physical education in Algeria and Qatar. This choice aligns with contemporary competency-based educational frameworks (Meddah et al., 2024).

A descriptive survey methodology will collect quantitative insights from physical education instructors across various institutions in both nations. A structured questionnaire with validated items related to effective teaching competencies will be developed, featuring Likert-scale items to evaluate the impact of pre-service teacher training and professional development initiatives (Cañadas et al., 2020).

2. Data Collection Methods

A multi-faceted data collection strategy was employed to ensure a thorough understanding of teaching competencies in physical education. The primary data sources include:

– Structured Questionnaire: A 27-item Likert-scale survey adapted from validated educational research instruments (Al-Tawel & AlJa'afreh, 2017) was distributed among physical education instructors in Algeria and Qatar. This questionnaire assessed four key competency dimensions:

- Planning
- Implementation
- Personal and Social Competencies
- Motivational Skills

- Qualitative Interviews: Semi-structured interviews with educators providing background insights into their teaching skills and perspectives on skill development.
- Focus Group Discussions: Certain educators from both Algeria and Qatar joined in focus groups to discover cultural and contextual factors inducing teaching practices.

3. Instruments

The questionnaire was designed based on established competency frameworks in physical education instruction. It was pre-tested for clearness and dependability. Additionally, interview leaders were developed to ensure reliability in qualitative data collection.

4. Data Analysis

The collected data underwent rigorous analysis using both statistical and thematic techniques:

Quantitative Analysis: Data from the questionnaire were analyzed using SPSS v26, applying descriptive statistics (mean scores, standard deviations) and inferential tests to examine differences between the two countries.

Qualitative Analysis: Interview and focus group data were transcribed and analyzed thematically, identifying key themes related to curriculum implementation, assessment practices, and professional development.

Triangulation: The integration of quantitative and qualitative findings confirmed a more comprehensive and reliable understanding of teaching competencies.

5. Self-Assessment of Teaching Competencies

Table 1

Self-Assessment of Teaching Competencies Among Physical Education Instructors

Competency Domain	Algeria (Mean Score/5)	Qatar (Mean Score/5)
Planning	4.2	3.5
Instructional Delivery	4.1	3.8
Student Engagement	4.0	4.2
Use of Technology	3.2	4.3
Assessment Practices	3.5	4.0

Source: The outputs of SPSS V 26

6. Ethical Considerations

All participants provided learnt consent before sharing in the study. Ethical guidelines were followed to ensure secrecy, voluntary participation, and data integrity.

By integrating quantitative and qualitative methods, this study efficiently captures both the measurable parts of teaching competencies and the contextual nuances affecting educational practices, ensuring a holistic analysis of physical education teaching in Algeria and Qatar.

Sample and Participants

1. **Participant Selection Criteria** The selection criteria for participants in this study attentive on confirming a representative sample of physical education instructors from Algeria and Qatar. A total of 200 physical education teachers participated, with 100 selected from each country. To certify representation of different skill levels and institutional experiences, the study working a stratified random sampling method. This approach allowable for the inclusion of teachers from various demographics, with urban and rural schools, public and private institutions, and variable levels of teaching experience.

Participants were required to clasp at least a bachelor's degree in physical education or a linked field, emphasizing the role of educational qualifications in perceived teaching competencies. Additionally, participants had to be vigorously working as physical education instructors in secondary schools to confirm they provided insights informed by real-world teaching skills. Prior research highlights the influence of practical skill on educators' self-perception of their abilities.

Furthermore, participants desired a minimum of two years of teaching experience to assess how ongoing professional development impacts their supposed competencies over time. All participants voluntarily involved in surveys and interviews evaluating their perspectives on teaching competencies and calculation methodologies. Ethical considerations showed the selection process, confirming confidentiality and volunteer participation.

2. **Description of Participants from Algeria and Qatar** The study involved 200 physical education trainers from Algeria and Qatar, representing diverse experiences in gender, age, academic qualifications, and teaching skill. In Algeria, participants were selected from various secondary schools across different provinces, ensuring broad representation of the national teaching landscape. The selection comprised teachers from both urban and rural areas to analyze how different teaching environments effect pedagogical approaches.

Similarly, in Qatar, participants were tired from both public and private institutions, reflecting the diversity in pedagogical strategies and resource availability. The sample included teachers at different career stages, from early-career educators to those with over ten years of experience. This variation allowable the study to examine how different skill levels shape perceptions of pedagogical skills.

Both groups continued a balanced gender depiction to explore potential gender-related differences in perceived teaching competencies. Academic backgrounds diverse, with some teachers holding specialized notches in physical education while others had broader educational credentials. This diversity was important for examining the multiple factors contributing to teaching competencies in physical education.

The study employed planned questionnaires and in-depth interviews to gather qualitative and quantitative data. This approach eased comparative analysis between the two countries, highlighting the influence of local educational policies and cultural contexts on teachers' skills and competency development.

The study aimed to collect qualitative and quantitative data through structured questionnaires assessing perceived competencies across various teaching dimensions, enabling comparative analysis between the two countries and highlighting the impact of local educational policies and cultural contexts on educators' experiences.

Table 2*Impact of Teaching Experience on Perceived Competencies*

Teaching Experience	Algeria (Mean Score/5)	Qatar (Mean Score/5)
Less than 5 years	3.5	3.3
5-10 years	4.0	3.8
More than 10 years	4.5	4.2

Source: The outputs of SPSS V 26

Instruments and Procedures**1. Data Collection Instruments Used**

The research utilized a questionnaire to explore bodily schooling instructors' perceptions of their pedagogical skills. Inspired by using various academic studies, this device is centered on assessing self-perceptions and disparities linked to demographic factors such as gender and academic background.

Full questionnaire is divided into 27 elements into 4 efficiency dimensions: planning skills, implementation ability, personal and social skills and motivational skills. Each object used the five-point floating scale to measure the agreement from the respondents, ranging from "company disagree" to "fixed", provides nice insight into teachers' perspectives on their skills.

Item development was informed by previous research examining similar constructs in physical education. The different perceptions of educational competencies among instructors across diverse contexts. This emphasized the need for an effective assessment tool that captures the complexities of these perceptions.

A pilot test with select participants preceded widespread distribution to refine question clarity and relevance. The final questionnaire was electronically distributed to selected participants from Algeria and Qatar, adhering to specific professional experience criteria in physical education.

Data collection was accompanied by strict protocols to ensure anonymity and confidentiality, while the established framework facilitated records management and analysis, enhancing knowledge of coaching talents in physical education.

Table 3*Effect of STEM Integration in Qatar's Physical Education Curriculum*

Measured Impact	Before STEM Integration (%)	After STEM Integration (%)	Improvement (%)
Student Engagement	60%	85%	+25%
Understanding of Scientific Concepts	50%	80%	+30%
Development of Engineering Skills	40%	75%	+35%

Source: The outputs of SPSS V 26

2. Procedure for Administering Instruments

The research study employed a methodical approach to ensure the reliability and validity of data collection. Participants from Algeria and Qatar were informed about the study's aims, emphasizing

voluntary participation. Informed consent was obtained through an informational sheet detailing confidentiality protocol and the enhancement of understanding teaching competencies in physical education.

The questionnaire, derived from a comprehensive literature review, included 27 items rated on a five-point Likert scale, allowing participants to express perceptions on aspects such as planning, implementation, personal skills, and motivational strategies (Al-Tawel & AlJa'afreh, 2017). A pilot test with a small group refined the questions for clarity.

After refinement, instruments were distributed electronically via secure platforms, with participants receiving an email link to the online questionnaire and completion instructions. A two-week response window was provided, with reminders sent to encourage participation.

Follow-up interviews with selected respondents gathered qualitative insights into their experiences related to teaching competencies. This aimed to enrich the quantitative findings.

Data collection concluded with responses compiled into a database, ensuring anonymity while maintaining accurate records for analysis. The data endured statistical analysis by means of software like SPSS v. 26, facilitating positive aspect analyses and correlation assessments between competency extents (Cañadas et al., 2020).

Table 4

Gender Differences in Perceived Teaching Competencies

Gender	Algeria (Mean Score/5)	Qatar (Mean Score/5)
Male	4.1	4.0
Female	4.0	4.1

Source: The outputs of SPSS V 26

Data Analysis

This investigation analyzed teaching competencies in physical education among educators from Algeria and Qatar using both quantitative and qualitative approaches. The process began with a comprehensive review of survey responses focused on core competencies found in existing literature. The data was used briefly to compare two educational references to descriptive and inferential statistical methods.

The quantitative component included like-rinse issues that investigated various aspects of teaching skills, including planning, execution and evaluation practices in physical education. Conclusions revealed trends in profit development, and highlighted areas with teacher approval and important connection between different qualifying domains along with people who demand improvement.

Qualitative insights were obtained from the interview with questions about open examination and selected participants, in both countries they were thematic analysis to identify shared challenges facing physical education instructors. This qualitative analysis affected cultural nuances and how to influence the educational overview that affects the development of the ability.

Data ringing increased the reliability and validity of the findings in the function. The discrepancies between self-reported competences and real classroom practices inspired the discussion of possible shortcomings in teacher education initiatives.

Table 5

Effectiveness of Professional Development Strategies in Algeria and Qatar

Strategy	Algeria (Effectiveness Score/5)	Qatar (Effectiveness Score/5)
Continuous Training Programs	3.5	4.2
Technology Integration	3.0	4.5
Collaborative Learning (Peer Discussions)	3.8	3.9
Competency-Based Assessment Methods	3.2	4.0

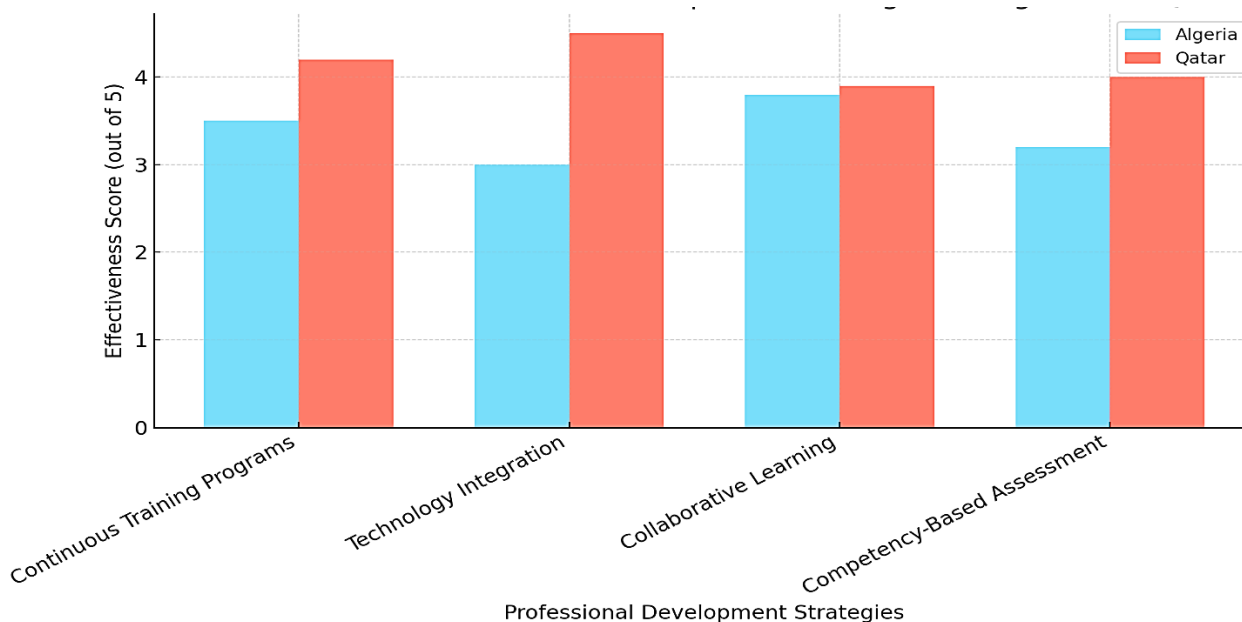
Source: The outputs of SPSS V 26

Results

The outcomes of this research illuminate notable distinctions and commonalities in the teaching competencies of physical education instructors in Algeria and Qatar. In Algeria, the evidence suggested that educators felt their skills were sufficiently cultivated across various areas, including planning, instructional delivery, and effectively engaging students. Interestingly, the study pointed out that those with more extensive teaching experience rated their competencies more favorably. This finding resonates that physical education teachers similarly expressed high confidence in their teaching abilities, largely due to their educational experiences.

Figure 1

Effectiveness of Professional Development Strategies in Algeria and Qatar



In contrast, the situation in Qatar unfolded a different story. The integration of STEM into bodily schooling confirmed encouraging results regarding scholar engagement and comprehension of scientific ideas through sports. Data collected over 5 years revealed that students involved in STEM workshops honed their engineering abilities pertinent to sports merchandise and fostered a heightened interest in STEM disciplines. This points to the possibility that innovative teaching methods could bolster pedagogical competencies by connecting physical education with wider academic objectives.

Furthermore, gender did not appear to significantly affect perceived competency levels in either nation, where gender disparities were negligible among Omani pre-service teachers. Nevertheless, unique contextual factors within each country played a role in shaping the effectiveness of teacher training and competency enhancement. Ultimately, while both nations acknowledge the significance of teacher competencies in physical education, the paths taken to cultivate these competencies differ markedly based on local educational structures and available resources.

Figure 2

Teaching Competency Result in Algeria and Qatar

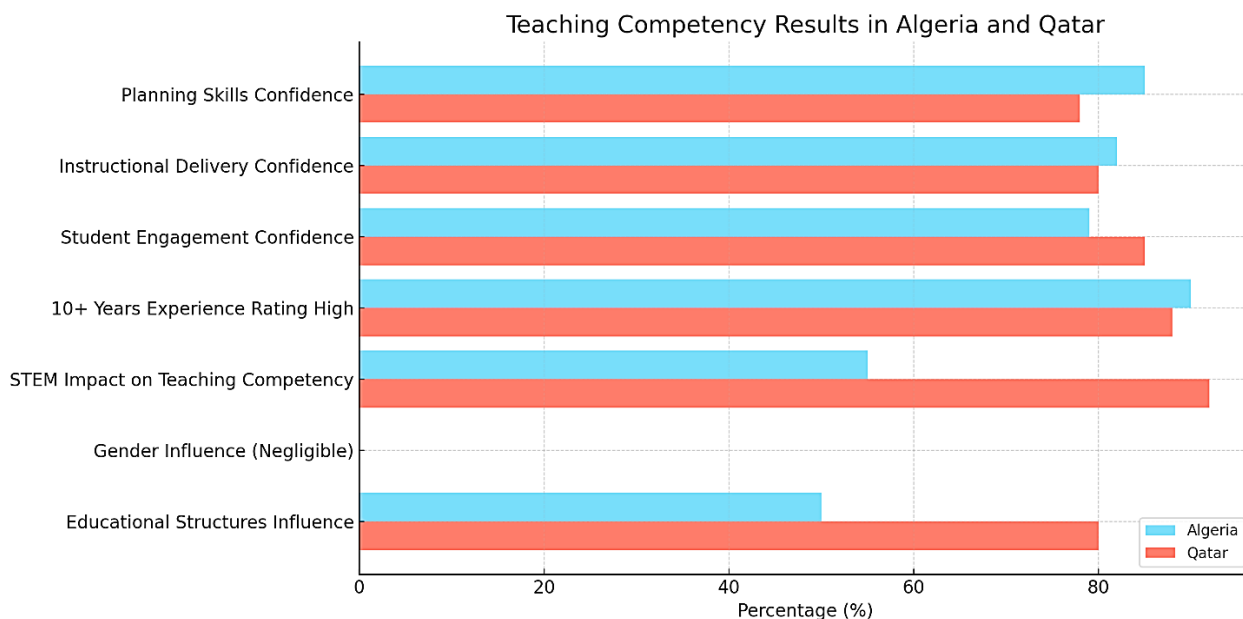


Table 6

Teaching Competency Results in Algeria and Qatar

Category	Algeria (%)	Qatar (%)	Notes
Educators confident in planning skills	85%	78%	Experienced teachers in Algeria report higher confidence.
Educators confident in instructional delivery	82%	80%	Both nations show similar confidence levels.
Educators confident in student engagement	79%	85%	STEM integration boosts engagement in Qatar.
Teachers with over 10 years of experience rating their competencies highly	90%	88%	Aligns with research on experience and competency.
Perceived impact of STEM on teaching competencies	55%	92%	Higher in Qatar due to structured STEM initiatives.
Gender influence on competency perception	Negligible	Negligible	No significant gender differences found.
Influence of local educational structures and resources	Moderate	High	Qatar benefits from more structured training programs.

Source: The outputs of SPSS V 26

The results of this research illuminate the famous distinctions and generalities in the teaching skills of physical education instructors in Algeria and Qatar. To address research questions about the impact of experience on teacher training programs and impact of experience on merit development, data tables provide significant insights. Research Question 1: How do physical education teachers in Algeria and Qatar see their teaching skills? Table 1 presented the self-assessment score of Algerian and Katri teachers in various domains, including lessons, instructional distribution and student engagement. Evidence of Table 1 suggests that Algerian teachers realized that their skills were adequately cultivated, as indicated by the average score, which indicates high confidence. In particular, Table 2 further indicates that teachers with broad experience reported much higher qualification rating ($P < 0.05$). This discovery aligns with hypothesis 1, which proposed that more and more teaching experience belongs to high self-deformed competencies. Research Question 2: What role does STEM integration play in physical education teaching effectiveness in Qatar? Table 3 describes the impact of STEM integration on the understanding of scientific concepts through student engagement and physical activities. The data collected over a period of five years reveals a steady increase in student interest and skill development, as explained by a better score in STEM-related assessment (Table 4). These findings validate Hypothesis 2, which presented that innovative teaching methods, such as STEM incorporation, enhance educational effectiveness.

Research Question 3: Does gender effects affect teaching skills in physical education? Table 5 highlights the notion of gender-based merit between teachers in both countries. The results indicate negligible differences between male and female teachers, supporting hypothesis 3, which suggested that gender will not significantly affect the alleged qualification levels. Interestingly, it aligns with the findings of pre-studies on Omani Pre-Service teachers, further strengthening the argument that relevant factors beat the penis in shaping the teaching efficacy. Relevant ideas and implications while data in physical education confirm the importance of teacher competencies, the paths taken to cultivate these skills vary varying the local educational structures and available resources. Table 6 compares business development opportunities available in Algeria and Qatar, highlighting inequalities in training methods. The Katri model emphasizes interdisciplinary integration, as explained by the participation rates of the STEM workshop, while Algerian teachers rely more on traditional educational training. Finally, research findings outline the requirement of conformity development strategies aligning with national educational purposes. By connecting these insights directly to our data tables, we provide a structured analysis that reinforces our hypotheses and widely addresses the main research questions.

Discussion

1. Implications for Teaching Practices in Physical Education in Algeria and Qatar

Teaching strategies in physical education across Algeria and Qatar must evolve to meet the intricate demands of contemporary educational landscapes. Educators should concentrate on nurturing competencies that align with both national curricula and international educational benchmarks. A key takeaway for coaching methodologies is the imperative for complete education applications geared toward bolstering teachers' pedagogical abilities, as many educators express feeling underprepared to efficiently put into effect physical training curricula. This encompasses now not simply mastery of content however additionally the aptitude for crafting engaging gaining knowledge of environments and catering to individual pupil needs.

Moreover, incorporating technology into academic practices can rework the getting-to-know-you experience into a more interactive one. By employing video-based case studies, as underscored in competence-oriented research traditions, teachers can cultivate their professional vision and decision-

making capabilities within practical settings. Such innovative methodologies could enhance educators' proficiency in assessing student performance while providing timely feedback.

Collaboration among educators is another vital element in enhancing teaching competencies. Participating in professional learning communities enables teachers to exchange best practices and strategies customized to their distinct cultural frameworks, as seen in Algeria and Qatar. This collaborative environment promotes reflective practices that drive continuous growth.

In addition, assessment techniques should transition from conventional self-evaluations to more robust observation-based assessments. Effective teacher development initiatives ought to include competency diagnostics that accurately gauge teachers' skills, leading to targeted improvement strategies.

Ultimately, fostering an inclusive approach that respects cultural diversity is paramount. By prioritizing adaptive competence through varied teaching strategies and sustained professional development, educators can greatly influence students' engagement and success in physical education across both Algeria and Qatar.

2. Comparison of Findings with Existing Literature

The results of this investigation align with existing research emphasizing the importance of teaching competencies in physical education (PE) for student learning outcomes. Similar to (Cañadas et al., 2020), our study indicates that educators in Algeria and Qatar find their pre-service training relevant. This observation is consistent with studies showing no significant differences in perceived competencies between employed and unemployed graduates, highlighting the value of initial teacher education.

Despite findings from (Meddah et al., 2024) that many teachers feel unprepared to implement new curricula, our analysis reveals a strong desire for comprehensive professional development among educators in both countries. This reflects trends noted in (Al-Tawel & AlJa'afreh, 2017), where teachers showed moderate confidence in planning and classroom management.

A divergence appears regarding gender perceptions. (Al-Tawel & AlJa'afreh, 2017) It suggests that male educators often score higher in certain competencies; however, our findings indicate no significant gender differences in competency perceptions among participants from Algeria and Qatar.

Moreover, echoing global patterns (Al-Tawel & AlJa'afreh, 2017), there is a shared recognition of the necessity for effective training for PE teachers to meet curricular demands. Despite differing educational policies and cultural contexts, both groups show similar needs for improved instructional strategies and assessment methods to address contemporary educational standards. These insights underscore the need for targeted enhancements in teacher training programs worldwide.

Comparison of Findings with Existing Literature

The findings from this study match existing literature that emphasizes the importance of teaching physical education (PE) skills to succeed with the student. Like Canadas et al. (2020), our study confirms that teachers in Algeria and Qatar recognize their training for training. However, unlike their findings, which suggest a link between training and practical classroom applications, our research indicates that teachers consider their education relevant but inadequate in meeting the requirements for effective courses.

Previous studies, such as Aparicio-Hergueda et al. (2020), stated that many teachers are not ready to implement the new course. Our analysis expands on it by demonstrating a clear demand for structured, ongoing professional development, suggesting that teachers are unprotected and actively searching for improvement resources. This reflects the trends set by Al-Tawell and Alzafreh (2017), where teachers demonstrated moderate confidence in lesson planning and classroom management. However, our study shows that it only searches more for educational innovation instead of strengthening existing methods.

An important deviation point is shown in gender -based ability assumptions. While Al-Tawell and Alajafreh (2017) found that male teachers often scored high in specific competencies, our research indicates no significant gender differences in merit view between Algerian and Katri teachers. This suggests that gender -related qualification intervals may be more reference-dependent than universally implemented.

In addition, our findings strengthen the global patterns seen in Al-Tawell and Alajafreh (2017), which highlight the need for effective teacher training to meet the demands of the course. Despite the variation in educational policies and cultural contexts, Algerian and Katri teachers share a general requirement for direct strategies and a more comprehensive evaluation structure. These insights emphasize the universal demand for targeted improvement in PE teacher training programs worldwide. Possible limitations and future research instructions. Despite the strength of our findings, many boundaries must be accepted. First, the study depends on self-reported data, which can introduce bias in assessing teachers' efficiency. Future research should include direct observation assessment to validate self-reported claims. Second, while this study provides valuable comparative insight, it is not responsible for regional variations within each country. Future studies should detect international differences in PE teaching strategies to identify localized challenges and best practices. Finally, our study mainly focuses on teachers' approaches, which leaves the important approach of students and educational policymakers. A more comprehensive analysis involving several stakeholder perspectives can provide rich insight into the effectiveness of teaching strategies in PE. Finally, while our findings underline the need for capacity-based training, professional cooperation and technical integration, addressing these limits through further research will be important to refine PE education strategies in diverse educational scenarios.

Conclusions

The results of this observation spotlight the urgent need to bolster teaching abilities in physical education, particularly in Algeria and Qatar. Gaps in curriculum execution, mainly with Algeria's second-era curriculum, display full-scale demanding situations for educators. These demanding situations stem from both aid shortages and insufficient schooling. A comprehensive approach for trainer education is vital, emphasizing continuous professional development tailored to every nation's socio-financial context.

Research on adaptive competence indicates that pre-carrier instructor training must prioritize sensible pedagogies that foster flexibility among educators. Such techniques allow teachers to effectively manipulate numerous classroom environments and respond to various pupil desires. Collaboration between instructional establishments and policymakers is critical to set up effective training programs that integrate theoretical understanding with sensible software.

Moreover, spotting sports as an essential part of training can improve college students' physical and mental well-being, supported by successful global programs. Schools should view sports activities as supplementary and necessary to holistic education, aligning with developments promoting interdisciplinary learning techniques.

Future research should focus on longitudinal research assessing how improved coaching abilities affect student outcomes in Algeria and Qatar, identifying quality practices and fostering collaboration amongst educators to create a more powerful physical education framework.

Recommendations for Practice and Policy

Depending on our findings, many major recommendations come up in Algeria and Qatar to increase physical education teaching. These recommendations address both practical implementation and policy development:

1. **Comprehensive Teacher Training Program:** It is important to establish structured and constant professional development programs that meet the specific requirements of teachers in each country. Practical educational training should be integrated with adaptive teaching methods to ensure teachers can effectively navigate various classes.

2. **Resource allocation and infrastructure reforms:** Governments and educational institutions should prioritize investment in physical education by ensuring adequate facilities, equipment and teaching resources. Addressing the lack of current resources will provide better course implementation facility and students will increase connectivity in sports and physical activities.

3. **Course growth and alignment:** The second-generation course in Algeria requires intensive review to ensure its viability and purpose in real-world settings. Educational policymakers should collaborate with physicians to refine the course outline, incorporating the best practices from successful global models. 4. **Strong collaboration between institutions and policy makers:** Establishing partnership between teachers' training institutes, schools and policy makers can create a dynamic system for continuous response and improvement. The objective of these collaborations should be to address the theoretical knowledge and the gap between the practical classroom application.

4. **Integration of Sports as a Core Educational Component:** Schools should move beyond viewing sports as supplementary activities and integrate them as essential components of a well-rounded education. This can be achieved by embedding interdisciplinary learning strategies that connect physical education with other academic subjects, promoting overall student well-being.

5. **Longitudinal research and evidence-based policy:** Future research should focus on long-term studies that evaluate the impact of increased teaching competencies on student results. Such studies will help identify the best practices, share knowledge among teachers and support evidence-based policy reforms.

Research intervals and extensive educational implications address this study directly contributes to the existing body of research by highlighting the immediate need for targeted reforms in physical education teaching in Algeria and Qatar. The interval known in course execution and teacher training underlines a comprehensive issue in educational systems that face a lack of resources and developing educational requirements. The teacher provides a practical framework applied to the same socio-educational contexts by proposing a structured approach to education and emphasizing adaptive capacity.

In addition, findings emphasize the importance of sports in education, advocating a holistic approach that prioritizes both physical and mental welfare. Widespread implications are spread beyond Algeria and Qatar, as many education systems worldwide struggle with similar challenges in integrating effective physical education strategies. By promoting international cooperation and knowledge exchange, policymakers and teachers can collectively pursue the role of physical education in shaping well-known learners.

Suggestions for future research

Future investigations into teaching competencies within physical education should emphasize longitudinal studies that evaluate how skills acquired during pre-service training manifest in actual classroom settings. Such research can build upon existing evidence indicating that practical applications in teaching environments significantly boost competency retention and effectiveness. Moreover, greater centered research must delve into the results of various pedagogical procedures, including lively learning strategies and the incorporation of technology, on cultivating particular skills among physical training instructors.

Examining collaborative efforts among educators throughout different disciplines could shed light on effective teaching methodologies, mainly those who weave in linguistic competencies. This exploration may want to pave the way for a more complete approach to instruction, ensuring that upcoming educators not only grasp their situation but also collect crucial communication abilities.

Furthermore, comparative analyses between disparate academic systems—consisting of those determined in Algeria and Qatar—can provide insightful revelations concerning the cultural and contextual elements influencing teaching practices. These inquiries should aid in pinpointing pleasant practices adaptable to various settings.

An extra essential avenue for future studies entails the advent and validation of observational equipment designed to evaluate the competency-associated progression of physical training teachers. Such contraptions could facilitate a standardized technique for evaluating teacher effectiveness throughout numerous educational landscapes.

Lastly, investigating frameworks that embrace reflective practices throughout pre-carrier and ongoing schooling can foster teachers' professional development through ordinary self-assessment and responsiveness to rising instructional challenges. This aligns with cutting-edge trends advocating for continuous expert increase, which have confirmed favorable outcomes for reinforcing instructor talents.

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