

EXPLORING ACADEMIC PREREQUISITES AND PROFILING REQUIREMENTS OF MIDDLE SCHOOL PHYSICAL EDUCATION TEACHERS**Farruh Ahmedov^{1*}, Imen Achouri², Erembetov Bayrambay³, Mambetnazarov Islambek³, Zakirov Farukh⁴, Mirzaev Ibrokhim⁴, Tojiev Ulugbek⁴, Burkhonov Farrukh⁴, Fakhridin Khaydarov⁴****¹Samarkand State University, Uzbekistan; ²High Institute of Sports and Physical Education, Sfax University, Tunisia; ³Nukus branch of Uzbek State University of Physical Culture and Sports, Uzbekistan; ⁴Uzbek-Finnish Pedagogical Institute, Uzbekistan****Abstract**

This study sought to examine the academic backgrounds and prerequisites of physical education instructors in middle schools. Thus, a total of 59 middle school physical education teachers (average age= 41±8.3, average experience=9±3.7 years) participated in this research endeavor. Qualitative analysis was carried out through interviews, wherein participants submitted written accounts detailing their viewpoints across five distinct categories: Advancing Pedagogical and Psychological Understanding; Critical Assessment of Activities; Activity Supervision; Comprehension of Students' Psychological and Emotional States; and Individual and Professional Prerequisites. The questionnaire outcomes were utilized to identify the markers of the professional profiles of physical education instructors. The findings of this study validate that the academic profile of physical education instructors encompasses a range of dimensions. They must meet diverse requirements, and their academic role is multifaceted. The findings of this exploration may prove beneficial for the education and preparation of future physical education educators.

Keywords: Education, Physical education, Practices, profile, Requirements, Teacher

Introduction

A quality education empowers individuals to develop critical thinking skills, gain knowledge and broaden their perspective. For decades, global legal entities such as the UN (2016) and UNESCO (1994) has caught considerable attention of the importance of education and defended schooling as a non-discriminatory and egalitarian policy. Furthermore, the evolution of school education and the criteria for teachers are delineated by local legislation, exemplified by the Law of Education in Uzbekistan (2020). The education system relies on competent teachers who make learning easier. This highlights the need for comprehensive abilities in teaching, including subject expertise, pedagogical prowess, social adeptness, and behavioral acumen. (Sebalo & Teslenko, 2020; Valente et al., 2023). Moreover, the progress of school education and the improvement of teachers' social status are crucial to foster the development of education a key aspect of promoting children's health and well-being

Manuscrito recibido: 25/03/2024

Manuscrito aceptado: 18/04/2024

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lies in societies building and implementing strong physical education systems (Lawson, 2020)

In this context, Physical Education (PE) Teachers play a crucial role in contemporary society by promotion physical activity, healthy living and well-being among students. Literature has widely demonstrated the role of PE teacher as a leader of positive outcomes; For instance, combating sedentary lifestyles (Awadhesh & Aaron, 2022; McKenzie & Lounsbury, 2013), maintaining overall health and fighting disease during the COVID-19 pandemic, promoting fitness and inculcate regular exercise and healthy habits that strengthen an individual's immune system and reduce risk of sedentary lifestyles (Goodyear et al., 2021; Valeria et al., 2022), considering challenges of teaching PE online during the pandemic (Gunn Nyberg, Erik Backman & Richard Tinning 2024), attending physical well-being and social cohesion among students. (Richards et al., 2014; Richards et al., 2019). Also, to enhance students' physical activity levels and safeguarding their overall health (Morgan & Hansen, 2008).

Moreover, PE teachers provide pivotal role as catalysts for positive change within educational settings. Through their active engagement and motivational demeanor, lead active, healthy lifestyles beyond the confines of the classroom (Prontenko et.al., 2019). Moreover, fostering spiritual and moral self-identification, as well as facilitating personal growth among the younger generation. This evolving societal landscape has precipitated a heightened demand for pedagogical activities to not only impart academic knowledge but also to nurture the holistic development of students. Consequently, there has been a notable escalation in the level of professional and personal requirements expected of educators engaged in pedagogical endeavors (Shevchenko et al., 2019; Syunina et. al., 2018).

In conclusion, PE goes beyond teaching sports techniques, fostering resilience, team work, leadership and perseverance shaping students holistically in body, mind and spirit. Additionally, PE teacher instill values like discipline, fair play and self-motivation, social engagement preparing students for success in various aspects of life. Their influence extend to mental health, academic, performance, and the development of essential life skills making them vital education in shaping healthier and more active generation. In addition to their instructional responsibilities, PE teachers are tasked with a multitude of concurrent duties, including management and organizational duties

Thus, further researchers should investigate the need to maintain PE as an international area of research and exploring it importance (Hardman et al., 2013; Marshall & Hardman, 2000). The latest findings from the World Health

Organization (WHO, 2022) emphasize the urgent need to take proactive measures to increase physical activity levels in the future which will decrease healthcare costs and highlights the urgent need to prioritize physical activity and promote global collaboration to effectively address this challenge.

According to Metzler (2011) the imperative of reevaluating the academic profile and requisite skill set of PE teachers. Indeed, the scope of requirements for these educators is expansive and multifaceted. Moreover, enhancing the teaching-learning process hinges on a comprehensive approach that encompasses diverse teaching styles, robust knowledge bases, and refined pedagogical skills. (Fernández & Espada, 2021). Similarly, Lee et al. (2017) contend that PE programs equip teacher candidates with the requisite knowledge, skills, and attitudes necessary to positively influence student learning outcomes. Furthermore, they assert that quality PE teachers must continuously adapt to the evolving demands of their profession throughout their careers to maintain effectiveness.

However, certain researchers emphasize the importance of providing schools with optimal sports equipment to boost job satisfaction and decrease burnout among physical education (PE) teachers. The quality of sports facilities at schools significantly influences educators' well-being, especially in low-income schools. Teachers in schools with subpar sports facilities tend to report lower job satisfaction and higher exhaustion rates compared to those in well-equipped schools (Kroupis et al., 2019).

At present, many universities worldwide offer higher education programs to train PE teachers, each with distinct teaching approaches. Yet, there's a growing debate about whether these programs effectively develop the required competencies for PE teachers. Maksymchuk et al. (2018) noted that the current training model doesn't match contemporary demands, advocating for an innovative, modernized approach aligned with evolving labor market needs.

Despite the complex nature of their duties, the personal aspects of PE teachers' roles remain relatively unexplored. In conclusion, PE teachers need a range of skills and abilities crucial for promoting physical activity, fostering skill development, and nurturing students' holistic growth and well-being (e.g., Fernández & Espada, 2021; Lee et al., 2017). While existing literature extensively examines PE teachers' motivation, education, and organizational practices, there's a notable gap in understanding how academic indicators correlate with these dimensions. This gap hinders our grasp of the academic profile structure of PE teachers and the associated professional demands.

Hence, this study aims to analyze the academic profiles and requirements of PE teachers in Uzbekistan, leveraging their perspectives and experiences to illuminate the intricate relationship between academic qualifications and the multifaceted roles and responsibilities of PE teachers. This endeavor contributes to a more thorough understanding of their professional landscape.

Materials and Methods

Participants

This study involved 59 physical education teachers, currently undergoing training at the Retraining and Advanced Training Institute in Physical Education and Sports, Samarkand Branch. The average age was 41 ± 8.3 years, and the average work experience at middle schools was 9 ± 3.7 years. To maintain gender balance, 29 male and 28 female teachers participated in the study.

Instruments

This study employed a qualitative analysis conducted through interviews, with participants providing written reports of their perspectives on five distinct categories: Enhancing Pedagogical and Psychological Knowledge; Critical Evaluation of Activities; Monitoring Activities; Communicative and Organizational Requirements; and Scientific-Educational Requirements. Through this structured approach, the study aimed to gain insights into the various demands placed upon PE teachers in their professional roles.

Research Design

This study was conducted at the Retraining and Advanced Training Institute in Physical Education and Sports, Samarkand Branch, a governmental institute operating under the Ministry of Sports. The institute hosts short-term courses, lasting 30 days, aimed at skill enhancement for physical education teachers from various regions of the country. Ethical standards were rigorously adhered to throughout the study, with approval obtained from the institutional and/or national research committee. Additionally, the study protocol was approved by the participants and ethical guidelines outlined in the Declaration of Helsinki (2013) were strictly followed.

Prior to data collection, participants were briefed on the study's purpose, and ethical procedures were ensured, including anonymity, response confidentiality, and voluntary participation. Participants were provided with written reports to express their opinions freely, and they were encouraged to respond honestly to the questionnaire (written report). The interview process spanned the academic year of 2023 (January-May), with interviews conducted monthly. Each month, participants were presented with a special questionnaire designed by the researchers.

The interview questions were formulated by the researchers, reviewed and approved by the Ethical Committee of the Retraining and Advanced Training Institute in Physical Education and Sports, Samarkand Branch. To ensure the representativeness of the samples, specific criteria were established. The study's inclusion criteria mandated that participants must currently work as physical education teachers in secondary schools, possess a minimum of 5 years of professional experience, and voluntarily participate in the interview process.

Data collection

After careful analysis, participants' response was meticulously categorized (from A to H) according to the predetermined categories (Enhancing Pedagogical and Psychological Knowledge, Critical Evaluation of Activities, Monitoring Activities, Understanding Students' Psychological and Emotional States, Personal and Professional Requirements, Teaching Requirements, Communicative and Organizational Indicators and Scientific-Educational Requirements). This systematic approach facilitated analysis and interpretation of the participants' feedback, allowing for a comprehensive understanding of the diverse perspectives

Results

Based on the interview results, teachers proposed four key areas for improvement in psychological and pedagogical indicators.

One area Enhancing Pedagogical and Psychological knowledge to better meet student needs. This includes staying current on modern teaching methodologies and relevant psychological theories within the context of physical education.

Critical Evaluation of Activities: Teachers highlighted the importance of self-reflection and critical assessment of their teaching practices, student activities, and student progress. This involves regularly evaluating the effectiveness of teaching strategies and making adjustments to optimize learning outcomes.

Monitoring Activities: Teachers emphasized the importance of actively monitoring their teaching to ensure it aligns with educational goals and student

needs. This includes monitoring teaching methods, student engagement, and classroom dynamics to create an optimal learning environment.

Understanding Students' Psychological and Emotional States: Participants recognized the importance of developing a nuanced understanding of students' psychological and emotional states. This involves being attuned to students' individual needs, motivations, and challenges, and employing empathetic approaches to support their holistic development.

In terms of Personal and Professional Requirements, all participants offered suggestions for self-demanding, self-improvement, diligence, enhancing physical fitness, and upholding pedagogical ethics or culture.

The results of the study based on the interview are depicted in [Table 1](#).

Discussion

The objective of this study was to investigate the academic backgrounds and prerequisites of PE teachers, serving as a representative sample of teachers' perspectives. Our analyses and inquiries showed the multifaceted nature of PE teachers' academic profiles. Additionally, this study not only corroborated findings from prior scholarly research (e.g., Metzler, 2017; Gaudreault et al., 2018) but also yielded novel scientific insights.

The research findings align with those of other scholars, such as Casey & MacPhail (2018), who stressed the importance of intellectual, creative, and motivational attributes in future PE teachers. This study, along with Botagariev et al.'s (2021) work, highlights the significance of these components in the professional training of PE teachers. Similar sentiments are echoed in the research of Arufe-Giráldez et al. (2023) and Casey & Kirk (2020), which emphasize organizing physical education activities based on educational laws and principles.

Furthermore, Enright et al. (2017) and Fernandez-Balboa (1997) have demonstrated the importance of adhering to these principles for effective educational practices. Additionally, Valente & Lourenço (2020) highlight the significance of teachers possessing conflict management skills, which contribute to enhancing educational quality and understanding students' emotions. The professional requirements for PE teachers outlined in this study are consistent with broader criteria reflected in related research. Moreover, studies by Castelli & Beighle (2007), McEvoy et al. (2015), O'Sullivan (2021), and Valente & Lourenço (2020) emphasize the positive impact of PE on holistic development, including physical, mental, and social well-being. Therefore, PE teachers must be adept at fostering these functions to nurture the overall growth of individuals, particularly young learners.

Obesity rates have surged globally in recent decades, a trend influenced by both genetic predispositions and environmental factors, as highlighted by Lifshitz (2008). Delgado-Floody (2019) proposed integrating high-intensity interval training into school PE programs as a strategy to combat childhood obesity. This underscores the pivotal role of PE in obesity prevention. Notably, PE teachers play a vital part in this effort, leveraging their knowledge and experience to instill healthy lifestyle habits in children. Studies such as those by Cardina & James (2021) and Kamil & Aboshkair (2022) affirm the direct correlation between PE teachers' work experience and addressing obesity and related ailments.

In certain nations like Japan, PE teachers are tasked with imparting health-related skills to students (Sato et al., 2023), necessitating continual expansion of their expertise. Consequently, some researchers argue that PE enhances children's physical and mental health, overall well-being, educational engagement, and cognitive abilities (e.g., Breslin et al., 2023; Yunusovich et al., 2022).

Our research highlights the importance of PE teachers continually improving their academic skills. Kingston et al. (2023) argue that the quality of teaching is greatly influenced by the structure of PE teacher training programs. As emphasized by Derwent (2015), these programs must meet specific standards, including competency and reflective thinking. Our findings emphasize the significance of psychological and pedagogical competence in improving teaching effectiveness. Analyzing students critically and understanding their psychological and emotional well-being are crucial aspects of pedagogical practice.

PE teachers must have both pedagogical and psychological expertise. Curran et al. (2017) confirm the crucial role teachers play in maintaining students' psychological and emotional well-being in the school environment. Furthermore, our study highlights the importance of personal and professional factors in shaping effective teaching. Self-discipline, ongoing self-improvement, physical readiness, and adherence to pedagogical ethics are fundamental requirements for teachers.

Recent studies, including Balashov et al. (2019), emphasize the direct correlation between future PE teachers' competence and their motor skills. Teachers are

Table 1. Identification of Requirements for Physical Education Teachers' Activities through Interviews (n=59).

Classification	Academic profile dimensions	Main Characteristics
A	Enhancing Pedagogical and Psychological Knowledge	1) This involves continuously updating and expanding knowledge of teaching methods and psychological theories relevant to PE.
		2) Teachers assess their own teaching practices and student activities to identify strengths, weaknesses, and areas for improvement.
		3) Teachers keep track of their teaching methods, student engagement levels, and overall classroom dynamics to ensure effective instruction.
		4) Teachers strive to understand students' emotional needs and create a supportive learning environment that promotes their well-being.
B	Critical Evaluation of Activities	1) Teachers set high standards for themselves and engage in self-reflection to continuously improve their teaching practices.
		2) Teachers invest effort and dedication into their professional growth and strive for excellence in their teaching.
		3) Recognizing the importance of leading by example, teachers prioritize their own physical fitness to serve as positive role models for students.
		4) Teachers adhere to ethical principles and professional standards in their teaching practices, ensuring fairness, integrity, and respect for students.
C	Monitoring Activities	1) Teachers carefully analyze curriculum requirements and plan engaging and effective lessons that align with educational objectives.
		2) Teachers create well-structured and organized learning environments that optimize student participation and learning outcomes.
		3) Teachers coordinate extracurricular activities and initiatives to provide students with additional opportunities for physical activity and skill development.
		4) Teachers educate students about the importance of physical activity, nutrition, and overall health, promoting lifelong healthy habits.
		5) Teachers assess students' physical fitness levels and progress using appropriate evaluation methods to tailor instruction and support individual needs.
		6) Teachers strive to create a positive and safe learning environment, guiding students away from harmful behaviors and promoting positive choices for their well-being.
D	Understanding Students' Psychological and Emotional States	1) Teachers effectively manage classroom dynamics, foster teamwork, and encourage student participation.
		2) Teachers establish a supportive and inclusive classroom culture where students feel valued, respected, and motivated to learn.
		3) Teachers manage student interactions to ensure a positive and respectful learning environment conducive to academic and social growth.
		4) Teachers demonstrate autonomy and sound judgment in making decisions that benefit student learning and well-being.
E	Personal and Professional Requirements	1) Teachers stay informed about current research, trends, and best practices in PE and incorporate them into their teaching.
		2) Teachers anticipate future developments and adapt their teaching approaches to meet evolving educational needs and trends.
		3) Teachers utilize evidence-based research and scholarly literature to inform their teaching practices and enhance the quality of instruction.

expected to be highly physically active during classes, requiring ongoing self-improvement and self-study abilities. Indeed, becoming a high-quality PE teacher necessitates a commitment to personal growth, as emphasized by researchers such as Andrew et al. (2016) and Fletcher & Hordvik (2023). When consulting teachers regarding didactic or methodological requisites, findings underscore the significance of several aspects: analyzing and designing educational curricula, structuring classes and extracurricular engagements, advocating for a healthy lifestyle, evaluating student progress, and safeguarding against detrimental habits through PE. These outcomes closely align with those outlined in the study by Casey and Kirk (2020), highlighting the indispensable role of comprehensive pedagogical expertise for effective PE instruction.

In terms of communicative and organizational requirements, the findings emphasize the importance of team management skills, creating an educational environment conducive to learning, adept student supervision during classes, and effective decision-making abilities. Proficient team management, fostering a supportive school climate, and sound decision-making are identified as key contributors to educational quality.

These results align with previous research (Beare et al., 2018; Cicourel & Kitsuse, 2020; Wang & Degol, 2016), highlighting their consistent impact on teaching effectiveness.

The study highlights the importance of staying updated on contemporary best practices, anticipating developmental stages of activities, and engaging in evidence-based practices, emphasizing the interconnectedness of education and scientific inquiry. Other scholars have similarly emphasized the centrality of science-based education in modern pedagogy (Chiriac et al., 2019; Scager

et al., 2016), affirming its pivotal role across all educational levels, including middle schools.

While this study offers valuable insights, it is subject to certain limitations. Firstly, its focus solely on PE teachers from a single country may limit the applicability of findings to other contexts. Additionally, the absence of gender classification hinders the ability to discern potential sex-based variations in results.

Future research could benefit from adopting a mixed-methods approach, combining qualitative and quantitative methodologies. Incorporating interviews with targeted questionnaires assessing psychological and educational variables will enhance understanding. For example, assessing teachers' emotional intelligence and professional effectiveness can provide nuanced insights into their instructional practices and interpersonal dynamics.

Conclusion

This interview-based study outlined the academic profiles and necessary qualifications of PE teachers, underscoring the multifaceted nature of their professional roles. The findings have implications for shaping the future training of PE instructors, informing the design of teacher education programs, and optimizing educational practices within schools. Prospective physical education educators can benefit from these results, as they offer insights into the professional demands, essential skills, and experiential aspects integral to the field.

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