

International Journal of Learning, Teaching and Educational Research
Vol. 24, No. 4, pp. 501-545, April 2025
<https://doi.org/10.26803/ijlter.24.4.23>
Received Mar 5, 2025; Revised Apr 11, 2025; Accepted Apr 18, 2025

Competency-Based Assessment of High School Students in Physical Education in Vietnam: Perspectives and Practices

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Abstract. Assessment is recognized as a critical aspect of the teaching and learning process. This study aimed to determine teachers' perceptions of and actual practices in implementing competency-based assessment in Vietnam's high school physical education (CAHPE). A descriptive survey design was utilized. A random sampling method was employed, with participant selection based on voluntary participation, accessibility, and availability. Fifty physical education (PE) teachers randomly selected from various high schools in the northern mountainous region of Vietnam participated in the survey. The survey consisted of a questionnaire designed with a 5-point Likert scale ranging from 1 to 5. All participants received the same questionnaire and answered all qualitative and quantitative questions related to assessment issues. Over 90% of the participating teachers understood the concept and purpose of CAHPE. Regarding assessment practices, 56% of the participants regularly conducted CAHPE, while 44% rarely or never conducted such assessments. The methods and tools employed by participants for assessment were minimal, and 90% of the participants had difficulty developing criteria for assessing students' competencies. CAHPE has many existing limitations and challenges in the northern mountainous region of Vietnam. The findings indicate that while the participating PE teachers acknowledged the importance of CAHPE, their assessment activities often did not align with this perspective. This result forms the basis from which schools can propose measures to improve CAHPE and enhance the quality of teaching and learning.

Keywords: assessment; competency; physical education; high school students; Vietnam

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1. Introduction

Profound social, spiritual, and economic changes in Vietnam require significant transformation of education, especially assessment transformation, to integrate into global education. To ensure fundamental education, the General Education Curriculum is being renewed to improve its content, format, and methods. On an international level, assessment is recognized as an essential aspect of pedagogical practice and accountability systems, and it fundamentally influences what knowledge and forms of knowledge expression are valued in schools. However, in reality, there are still many problems with this issue (DinanThompson & Penney, 2015). Assessment is defined as “*the process of gathering, recording, interpreting, using, and reporting information about students’ progress and achievements in the development of knowledge, skills, and attitudes*” (Ní Chrónín & Cosgrave, 2013, p. 220). Assessment has become central to efforts to influence and improve student learning in schools (Elwood, 2006).

Assessment in secondary school physical education (PE) has been a subject of interest for many scholars since the 1990s (Lund, 1992; Macdonald & Brooker, 1997; Solmon & Lee, 1997; Veal, 1992). Assessment in PE is considered an important part of the teaching and learning cycle in the context of PE (Lund, 1992; Ní Chrónín & Cosgrave, 2013; Ptack & Strobl, 2021; Siedentop, 1999), particularly in the high school context (Hodges et al., 2022; Leirhaug & Annerstedt, 2016; Mintah, 2003; Penney et al., 2012). Findings by Chan et al. (2011) indicate that assessment in PE affects teaching and learning processes. The messages conveyed and received through assessment may not align with the formal intended discourse, and systematic accountability mechanisms affect the rigor of assessment in PE and the consistency of teachers’ and students’ perceptions of the valuable elements of the subject (Chan et al., 2011). Assessment in PE can measure accountability, informing learners, parents, colleagues, and other members of society about the appropriateness and effectiveness of an educational program or unit of work (Bailey, 2001; Lund, 1992). Curriculum, pedagogy, and assessment are central components and catalysts for creating quality in PE (Arnesen et al., 2013; Penney et al., 2009). To develop and promote practical assessment in PE, it is necessary to align curriculum, pedagogy, assessment, and equitable social approaches to assessment (Hay & Penney, 2010).

Assessment is a robust messaging system in education, but it has not yet received sufficient research, critical attention, or theoretical exploration in PE (Mertler, 2009; Redelius & Hay, 2010). Recognizing the assessment challenges in PE, Collier (2011) conducted research providing constructive and feasible steps PE teachers can take to assess, evaluate, and grade their students effectively.

Assessment in PE, depending on its purpose, is classified into two main types: formative assessment and assessment for learning (Chng & Lund, 2018; Imwold et al., 2016). Many scholars have explored the role of formative assessment in PE (Bennett, 2011; Fisette & Franck, 2012; Krause et al., 2017; Ní Chrónín & Cosgrave, 2013). Additionally, numerous studies have investigated the value of assessment for learning in the PE context (Macken et al., 2020; Moura et al., 2021; Tolgfors, 2018). Assessment remains one of the most challenging and complex issues PE educators have faced over the years. Globally, many scholars have researched innovative assessment methods in teaching to replace traditional assessments

in PE, aiming to achieve learning objectives (López-Pastor et al., 2013; López Pastor et al., 2006; Rodríguez-Negro & Zulaika Isasti, 2016).

In their book, Hay and Penney (2012) explain that the role of assessment in education, particularly in PE, deserves ongoing theoretical exploration, research, and critical investigation (Penney et al., 2012). Gillespie (2013) has written a review of this book, he considers that their book highlights the influences on assessment practices and the potential benefits of adopting a sociocultural perspective in exploring various aspects of assessment. The book provides a clear perspective on the limitations of assessment and offers profound arguments about how alternative ways of thinking about assessment can support improved PE practices and assessment (cf. Gillespie, 2013).

Competency-based assessment is an approach built on a weighted framework of outcomes. Expected, general, and specific outcomes are explicitly defined, helping assessors, learners, and stakeholders make relatively objective judgments about whether learners have achieved desired outcomes, while recognizing learners' progress through their demonstrated outcomes. Competency-based assessment is not strictly tied to the duration of educational programs (Wolf, 2001).

Experts define competencies in PE as knowledge and understanding of PE theory, physical fitness or motor skill development, and the capacity to evaluate students' achievements and assess the effectiveness of PE processes (Bélanger et al., 2016; Lloyd, 2016; Longmuir et al., 2018). Competency-based assessment in PE (CAPE) has been studied by several scholars, with notable findings highlighting the importance of competency development in PE (Keegan et al., 2019; Longmuir et al., 2018; Redelius & Hay, 2012); through scientifically grounded and human-centered assessment, many studies or public projects have effectively promoted physical literacy in students (Huang, 2024).

In a learner-centered education system, assessment has a greater impact on learners. Various factors affect assessment outcomes; however, teachers' knowledge of assessment is an undeniable factor in determining assessment validity (Gaikwad et al., 2023). Therefore, to innovate assessment in PE, teachers must possess assessment competencies, including perspectives, the ability to develop PE standards for assessing learners, implementing innovative assessment practices, and involving students in the assessment process (Bayat & Rezaei, 2015; Matanin & Tannehill, 2016; Zhu, 2015). Other assessment competencies are, for example, developing student assessment criteria, diversifying assessment methods toward competency-based evaluation, and enhancing students' self-assessment and peer assessment. To effectively evaluate PE programs and monitor students' learning motivation, teachers need appropriate tools and integrated approaches (Pavlova et al., 2020; Wibowo et al., 2024; Young et al., 2021).

In 2018, Vietnam implemented a reformed General Education Curriculum focused on student competency development (Ministry of Education and Training, 2018). To make assessment more meaningful and contribute to the fundamental and comprehensive renewal of education and training, mechanisms to encourage and promote teachers to innovate assessment activities are essential. Investment in modern teaching equipment is needed to enable teachers to teach

and assess in a competency-oriented manner. Researching and understanding teachers' perspectives and practices regarding competency-based assessment is crucial to providing appropriate recommendations and proposals for achieving educational goals. However, this issue is still relatively new in Vietnam, and research remains quite limited.

Van (2014) conducted a study on competency-based assessment in the subject of literature. The author emphasized the need to identify both general and specific competencies to apply a standardized competency assessment process, focusing on the development of assessment criteria and valuing formative assessment. However, the study focused only on competency assessment in the literature subject at the lower secondary level, while PE is a distinctive subject and therefore presents certain differences (Van, 2014).

Hung (2016) conducted a study on competency-based teaching and learning in high schools in Nghệ An province. The author analyzed the current awareness of teachers and the actual implementation of competency-oriented teaching in high schools in Nghệ An. Based on this analysis, several solutions were proposed to improve the effectiveness of teaching in these schools following a competency-based approach. However, this study provided a general evaluation across all subjects in high schools in the central region of Vietnam (Hung, 2016).

In 2023, Thoang conducted an assessment of the management of competency-based student learning outcome evaluation in high schools in District 3, Ho Chi Minh City, Vietnam. The study highlighted both the positive aspects and the existing limitations in the management of competency-based assessment. However, the research focused mainly on evaluating the management practices of the school leadership team, particularly the principal, and did not assess the actual teaching and evaluation practices of subject teachers (Thoang, 2023).

CAPE in Vietnam remains a relatively new issue, and therefore, research on this topic is still quite limited. In 2022, 2023, and 2024, scholar Tu and other collaborators conducted several scientific studies on CAPE (Tu & Binh, 2024; Tu & Thuy, 2023; Tu & Yen, 2022). However, these studies primarily focused on elementary school students. To date, no research has addressed or investigated this issue specifically for high school students.

The above-mentioned studies emphasize the importance of competency-based student assessment to ensure the effectiveness of teaching and learning activities in Vietnam. Teachers play a key role in the process of assessing students' learning outcomes. Therefore, for competency-based assessment to be truly effective, it is essential to first evaluate teachers' awareness and implementation of this approach. Based on this, appropriate solutions can be proposed to enhance the effectiveness of competency-based assessment in PE.

2. Material and Methods

2.1 National Context

The primary focus of this study was the implementation of CAHPE in high schools as part of the nationwide reform of the General Education Curriculum in Vietnam. High school is a formal education level in Vietnam, designed for students aged 15 to 18, with some exceptions. It includes three grades: Grade 10 (first year), Grade 11 (second year), and Grade 12 (third year). This level of education is considered part of career-oriented education.

PE is a compulsory subject, implemented from Grade 1 to Grade 12. The subject contributes to achieving the goal of developing students' competencies, with a focus on:

“providing students with knowledge and skills in health care; knowledge and motor skills; forming exercise habits, the ability to choose appropriate sports to improve health, develop physical fitness, and motor qualities; thereby helping students develop awareness and responsibility for their health, their families, and the community, and adapt to living conditions, leading a happy and harmonious life with others.” (Ministry of Education and Training, 2018, p. 3)

The PE curriculum in Vietnam, designed to develop students' competencies, is open and flexible. Students can choose activities suitable to their physical abilities and interests and the organizational capacity of their school. Schools are encouraged to build educational plans aligning with local conditions and student characteristics. Therefore, schools and PE teachers are crucial in developing PE programs that suit students' physical and psychological development, enhance their potential through appropriate teaching methods, and apply assessment approaches that support competency development (Ministry of Education and Training, 2018).

2.2 Participants

This study employed a descriptive survey design. A random sampling method was utilized, with participant selection based on voluntary participation, accessibility, and availability. Individuals had full autonomy to decide whether or not to take part in the study. This approach ensured that participants had a genuine interest in the research topic and were more likely to provide valuable insights. Details of the survey participants are presented in Table 1.

Table 1: Survey sample details

Province	Number of participants	Gender (n)	
		Male	Female
Thai Nguyen	15	9	6
Bac Kan	12	8	4
Cao Bang	8	6	2
Lang Son	8	7	1
Hoa Binh	7	5	2
Total	50	35	15

The participants were permanent PE teachers from Vietnamese high schools. They were informed in advance about the survey. A total of 50 PE teachers (35 male and 15 female) from 5 provinces in the northern mountainous region of Vietnam participated in a semi-structured survey. Their average age was 39 ± 10.3 years, with an average of 15 ± 10.1 years of experience teaching high school PE. All participants received the same questionnaire and responded to assessment-related issues. The questionnaire covered the following themes: 1) teachers' perceptions of the concept, purpose, and importance of CAHPE; and 2) how high school PE teachers currently implement competency-based assessment. Data collection was conducted in 2023. Participants were assured of anonymity and informed of their right to withdraw from the study at any time. Informed consent and ethical approval were granted by the school board.

2.3 Construction of the Physical Education Assessment Questionnaire

We developed a questionnaire to identify perceptions and actual practices of CAHPE in Vietnam (see Appendix 1). Initially, a comprehensive literature review was conducted to establish the theoretical foundations of competency-based assessment and related concepts. This work involved examining both national and international literature, including research papers and articles in the field of assessment, highlighting key studies and findings to construct a solid theoretical framework. This framework outlines the essential components for assessing PE teachers' awareness and practices regarding competency-based assessment for high school students. After reviewing literature on assessment in general and CAPE specifically, we identified key components for a comprehensive questionnaire. A workshop was conducted with 15 Vietnamese experts in PE and/or assessment to provide input. Revisions were made based on the workshop feedback, and the first draft of the questionnaire was prepared. This first version was then tested with 20 high school PE teachers, who provided written comments on the clarity and content of the questionnaire and discussed their feedback verbally with us. Based on their input, a second version was created and reviewed again by the expert group, leading to minor revisions. The composition of the finalized questionnaire is presented in Table 2. Except for general information and assessment practices, the questionnaire was designed using a 5-point Likert scale, ranging from 1 to 5: *Strongly disagree/Never* (1), *Disagree/Rarely* (2), *Neutral/Sometimes* (3), *Agree/Often* (4), and *Strongly agree/Very often* (5) (Borghouts et al., 2017; Norman, 2010).

Table 2: Composition of the questionnaire

No	Contents	No. items	Details
Part I	Teachers' perceptions of competency-based assessment	19	
1	Concept of assessment	5	Strongly disagree
2	Purpose of assessment	9	Disagree Neutral Agree Strongly agree

3	Importance of assessment	5	Not important Not really important Neutral Important Very important
Part II	Teachers' assessment practices	25	
4	Frequency of assessment implementation	5	Never Rarely Occasionally Frequently Very frequently
5	Assessment methods	5	
6	Assessment tools	8	
7	Teachers' challenges in implementing assessment	7	Strongly disagree Disagree Neutral Agree Strongly agree

2.4 Data Analysis

The data are presented in terms of means, standard deviations, and rankings of the study components. All data were quantitatively analyzed using IBM SPSS 22 software through descriptive statistics. The supplementary comments from participating teachers were recorded, compiled, and analyzed qualitatively. Qualitative data collected from the survey were analyzed thematically. In addition, quantification of qualitative data was performed by using frequency of occurrence to identify trends and patterns related to the research objectives.

3. Results

The data analysis is presented based on the two parts of the questionnaire and seven constructs:

Part I - (For Objective 1: Assessing physical education teachers' awareness)

1. Teachers' perception of the concept of CAHPE (Table 3)
2. Perceptions of the role of CAHPE (Table 4)
3. Teachers' perceptions of the purpose of CAHPE (Table 5)

Part II - (For Objective 2: Identifying current assessment practices of PE teachers)

4. The frequency of CAHPE (Table 6)
5. Different competency-based assessment methods in high school PE (Table 7)
6. Competency-based assessment tools in high school PE (Table 8)
7. Difficulties faced by teachers in implementing competency-based assessment (Table 9)

3.1 Teachers' Perceptions

Table 3 presents the statistics on participants' current perceptions of the concept of CAHPE. The survey results show that among the five concepts provided, most participants agreed with concepts C2 and C4 ($M > 4.0$), with C4 being the most accurate and comprehensive ($M = 4.5$). The findings indicate that 90% of participants perceived CAPE correctly. However, 6% agreed with C1, 28% with C3, and 30% with C5, indicating an incomplete understanding of the concept.

Table 3: Perceptions of the concept of CAHPE

Variable	Concept	Min	Max	Mean	SD	Rank
C1	Competency-based assessment involves making judgments about students' mastery of knowledge, skills, and attitudes to address assigned tasks	1.00	4.00	2.3800	0.80534	5
C2	Competency-based assessment is the process of collecting and analyzing information to make judgments about students' application of knowledge, skills, and attitudes to address assigned tasks	3.00	5.00	4.0200	0.55291	2
C3	Competency-based assessment is essentially the process of assessing students' learning competencies achieved.	1.00	5.00	2.5200	1.34377	4
C4	Competency-based assessment is the process of collecting and analyzing information to evaluate students' integrated application of knowledge, skills, and attitudes to solve complex assigned tasks in real or hypothetical contexts to meet competency goals	3.00	5.00	4.5000	0.67763	1
C5	Competency-based assessment is the process of collecting and analyzing information about students' skills in effectively solving complex assigned tasks to meet competency goals	1.00	5.00	3.0000	1.10657	3

Note: SD: Standard deviation

Undoubtedly, teachers play a central role in the assessment process, and therefore, their awareness is crucial for making positive changes in assessment practices. To effectively implement competency-based assessment in PE, teachers must have a clear and accurate understanding of this concept. Survey results indicate that participants correctly understood the concept of competency-based assessment. This serves as a favorable condition for the assessment process.

Table 4 presents the statistics on participants' current perceptions of the role of CAHPE. The results in Table 4 indicate that most participants (94%) perceived CAHPE as "important" or "very important". However, a small proportion (6%)

rated its role as “neutral” or below, highlighting potential challenges in implementing educational reforms in Vietnam.

Table 4: Perceptions of the role of CAHPE

No.	Level	Participants	
		Number	Percentage (%)
1	Very important	31	62.00
2	Important	16	32.00
3	Neutral	3	6.00
4	Not really important	0	0.00
5	Not important	0	0.00
Total		50	100

Clearly understanding the role and importance of competency-based assessment helps teachers recognize its value and the necessity of its implementation. Survey results reveal that the majority of the participants had a proper understanding of the role of competency-based assessment in PE, which is a key factor contributing to the successful implementation of competency-based assessment practices in PE.

Table 5 presents the statistics on participants’ current perceptions of the purpose of CAHPE.

Table 5: Perceptions of the purpose of CAHPE

Variable	Purpose	Min	Max	Mean	SD	Rank
P1	Assessment for learners’ progress	4.00	5.00	4.5000	0.50508	1
P2	Assessment for grading and ranking students	2.00	5.00	3.7600	0.91607	7
P3	Assessment for feedback on the subject	2.00	5.00	3.8200	0.96235	5
P4	Assessment to focus students on key subject content	2.00	5.00	3.6800	0.93547	8
P5	Assessment to encourage students to showcase their competencies	3.00	5.00	4.3000	0.64681	2
P6	Assessment to help students identify areas for improvement	2.00	5.00	3.9400	0.93481	4
P7	Assessment to motivate students to study better	3.00	5.00	4.2600	0.69429	3
P8	Assessment to help teachers identify and address students’ learning difficulties	2.00	5.00	3.8000	0.88063	6

P9	Assessment to help teachers monitor and adjust teaching activities	3.00	5.00	4.2600	0.63278	3
Valid N (listwise)		50				

Survey responses regarding the purposes of CAHPE revealed that most of the participants selected “agree” for the given options. The variables on the purpose of CAHPE rated highest ($M > 4.0$) were P1 (assessment for learners’ progress), P5 (assessment to encourage students to showcase their competencies), P7 (assessment to motivate students to study better), and P9 (assessment to help teachers monitor and adjust teaching activities). However, some participants disagreed with some of the purpose variables, reflecting gaps in understanding the purposes of competency-based assessment in Vietnamese high schools.

3.2 The Practice of Assessment

Table 6 presents the survey results on the current implementation of CAHPE.

Table 6: The frequency of CAHPE

No.	Level	Participants	
		Number	Percentage (%)
1	Very frequently	1	2.0
2	Frequently	27	54.0
3	Occasionally	22	44.0
4	Rarely	0	0.0
5	Never	0	0.0
Total		50	100.0

The results indicate that 56% of the participating PE teachers frequently or very frequently implemented competency-based assessment, reflecting a relatively positive trend. However, 44% of the participants only occasionally conducted such assessments, highlighting certain limitations in adapting to the competency-based approach within the newly reformed education curriculum in Vietnam. Challenges in applying these methods could contribute to this disparity.

Table 7 presents results on the current situation of competency-based assessment methods in high school PE. Data analysis revealed that the methods “Observation” (M2) and “Assessment of student learning products” (M5) were the most frequently used methods, with an average score above 4.0. These traditional approaches dominated CAHPE. The other methods, namely written tests, Q&A, and portfolio assessment, were rarely or never utilized, with over 80% of participants scoring them at low frequencies ($M < 2$). This highlights a lack of diversity in the assessment methods employed by participants.

Table 7: Different competency-based assessment methods in high school PE

Variable	Method	Min	Max	Mean	SD	Rank
M1	Written tests	1.00	3.00	1.1600	0.46773	5
M2	Observation	3.00	5.00	4.1000	0.70711	1
M3	Q&A	1.00	2.00	1.4800	0.50467	3
M4	Portfolio assessment	1.00	2.00	1.3000	0.46291	4
M5	Assessment of student learning products	3.00	5.00	4.0000	0.63888	2
Valid N (listwise)		50				

Table 8 presents the results on the competency-based assessment tools in PE.

Table 8: Competency-based assessment tools in high school PE

Variable	Tool	Min	Max	Mean	SD	Rank
T1	Questionnaires	1.00	3.00	1.1600	0.46773	7
T2	Oral examinations	1.00	2.00	1.5400	0.50346	6
T3	Short or daily logs	1.00	4.00	2.2000	0.90351	3
T4	Student portfolios	1.00	2.00	1.6400	0.48487	5
T5	Student work products	3.00	5.00	4.2000	0.60609	1
T6	Checklist	1.00	2.00	1.0800	0.27405	8
T7	Rating scales or observation sheets	1.00	5.00	2.3800	1.02798	2
T8	Rubrics	1.00	5.00	2.0800	1.06599	4
Valid N (listwise)		50				

The survey results show that participants used very few of the tools proposed for competency-based student assessment. The most frequently used tool was T5 (student work products), with 90% of participants using it regularly and 10% occasionally ($M = 4.2$). This suggests that, given the practical nature of the subject, evaluating student work products is a dominant and traditional tool frequently used by PE teachers. The survey results also indicate that tools such as T7 (rating scales or observation sheets), T8 (rubric-based assessments), and T3 (short or daily logs – which allow teachers to collect information and provide evaluations based on clearly defined criteria) were used regularly by only 10% to 14% of the participants. Most reported rarely or never using these tools.

Other tools, although quite common for CAHPE, were not widely utilized by the participating PE teachers. Only a small percentage used them occasionally, while most rarely or never employed them. This highlights that PE teachers have begun incorporating competency-based assessment tools but that their application remains limited. To effectively assess competency-based learning in PE, it is

necessary to combine multiple suitable assessment methods. Addressing this limitation is a pressing challenge in the implementation of CAHPE today. Given the current trend of educational quality reform in Vietnam, school teachers, especially PE teachers, were required to gradually shift from knowledge-heavy assessment methods to competency-based approaches. This transition aims to foster students' initiative-taking and creativity, thereby further improving the quality of education to meet the demands of modern society.

Table 9 presents the results on the difficulties in CAHPE.

Table 9: Difficulties faced by teachers in implementing competency-based assessment

Variable	Difficulty	Min	Max	Mean	SD	Rank
D1	Difficulty in identifying the competencies to be assessed in PE	3.00	5.00	4.1000	0.73540	3
D2	Difficulty in determining the process for competency-based assessment in PE	3.00	5.00	4.2800	0.60744	2
D3	Difficulty in establishing tasks for identifying competencies	1.00	5.00	2.7600	1.11685	5
D4	Difficulty in developing criteria for assessing students' competencies	2.00	5.00	4.5000	0.61445	1
D5	Low student engagement in assessment	1.00	5.00	2.8000	1.06904	4
D6	Overcrowded classes	1.00	5.00	2.7400	1.17473	7
D7	Time-consuming preparation and feedback	1.00	5.00	2.9000	1.19949	6
Valid N (listwise)		50				

The survey results show that the biggest difficulty participants faced in CAHPE was D4 (difficulty in developing criteria for assessing students' competencies), with 90% of participants agreeing and 10% expressing a neutral opinion ($M = 4.5$). The second and third most significant challenges were D1 and D2, with average scores of 4.10 and 4.28, respectively. For the remaining difficulties, less than 30% of participants expressed agreement ($M < 3$). These findings suggest that implementing CAHPE still presents considerable difficulties in practice. This situation is understandable, as CAPE is relatively new in Vietnam. Teachers are still unfamiliar with many aspects of this approach, which contributes to their challenges in applying it effectively.

The implementation of competency-based assessment, both in general and specifically in high school PE in Vietnam, was only introduced in 2020, making it

a relatively new concept for teachers. As a result, most teachers have had to navigate the process largely on their own during the initial stages. According to Circular No. 22/2021 issued by the Minister of Education and Training of Vietnam (2021), to effectively assess student performance in PE, teachers are required to use guidelines and evaluation criteria aligned with the subject's learning outcomes. However, the majority of teachers face difficulties in this area. These challenges may stem from a lack of clear understanding of the philosophy of competency-based assessment, reluctance to embrace innovation, and a tendency to rely on experience and habitual methods of assessment. These difficulties significantly affect the effectiveness of the assessment reform in high school PE and, more broadly, the overall improvement of teaching and learning quality (Ministry of Education and Training, 2021).

4. Discussion

Competency-based assessment is a widely accepted educational approach around the world today, due to its advantages of focusing on the development of students' actual abilities, enabling learners to engage with real-life situations, and closely linking learning with practice. In high schools, the formation and development of students' competencies are carried out across all subjects and extracurricular activities, among which PE plays an important role in shaping and fostering these competencies. This study contributes to the existing body of literature by providing insights into teachers' awareness and practical implementation of CAPE, thereby supporting the ongoing reform of assessment and evaluation in Vietnam.

Our research on CAHPE highlights the evolving perspectives of teachers, revealing diverse interpretations, evaluations, and preferences. Notably, 90% of the participating PE teachers correctly understood the concept of this assessment model. This finding is significant because teachers play a central role in assessing students' learning outcomes. A clear and accurate understanding of the concept of competency-based assessment in the teaching process provides a solid foundation for the effective implementation of assessment practices. This aligns with the findings of studies on assessment competencies in primary school PE (Leirhaug & Annerstedt, 2016).

The implementation of competency-based assessment is of paramount importance, as it serves as the core reference point for the entire teaching and learning process, as well as for the overall reform of the curriculum and textbooks. By focusing on innovating the assessment process, other components of the educational system are compelled to change accordingly. Our results indicate that 94% of the participating high school PE teachers considered CAHPE "important", resonating with Alison Wolf's observations in her research on competence-based assessment. Wolf (2001) emphasized the significance of competence-based assessment in the United Kingdom, particularly after the government's 1986 review of vocational qualifications, a sentiment echoed in other studies (Edwards et al., 2017; Francis et al., 2016; Keegan et al., 2019).

The modern perspective on competency-oriented assessment emphasizes formative assessment, aiming to identify students' progress and support their development in a timely way. This enables teachers and students to adjust and

self-adjust their teaching and learning activities throughout the educational process. This viewpoint clearly reflects the ideas of assessment as learning and assessment for learning, where assessment is seen as an integral part of the learning process and is conducted for the benefit of student learning. In addition, assessment of learning is also carried out at the end of an educational period to confirm what students have achieved in relation to the expected learning outcomes. Teachers in Vietnam demonstrate a clear understanding of competency-based assessment objectives, as reflected in participants' agreement with goals, scoring above 4.0 on average. The highest agreement ($M = 4.5$) was for the goal "assessment for learner progress" (P1), which is consistent with Wolf's conclusions on competency-based evaluation (Wolf, 2001).

In response to the question on the frequency of implementing competency-based assessment, 56% of participants reported regular use, while 44% used it occasionally. This suggests that competency-based assessment is a relatively new approach in PE instruction, with many teachers still relying on traditional assessment methods. Previous studies have noted a similar trend, where traditional assessment models remain dominant (López Pastor et al., 2006; Mertler, 2009).

Currently, in schools, it is often stated that assessment is conducted to determine how much progress students have made and how well they have achieved the expected knowledge and skills standards. However, in reality, only a limited number of assessment methods and formats are being applied, with a strong focus on learning outcomes, rather than diversifying assessment forms and approaches. To practice assessing, teachers need assessment methods and tools. Our findings show that the participating PE teachers in Vietnam's northern mountainous region predominantly used two methods, namely observation (M2) and assessment of student learning products (M5), with these methods used frequently by 80% of participants. Conversely, other methods, such as written tests (M1), Q&A (M3), and portfolio assessment (M4), were rarely employed. Among assessment tools, evaluation through student activity products (T5) was most commonly used (90%), while others were seldom or never utilized. This reflects a narrow range of assessment practices, despite an emphasis on competency-based approaches.

Similar findings have been observed in previous studies, indicating that teachers' assessment competence remains low and that there is a lack of theory-based tools in formative assessments. Traditional assessment methods are often preferred by teachers over alternative assessment strategies (Gaikwad et al., 2023; Yan & Pastore, 2022). The reason for this is that teachers face significant difficulties when implementing assessments. The findings of this study reveal that the most remarkable difficulty was D4 (difficulty in developing criteria for assessing students' competencies), with 90% agreement. D2 followed this, with difficulty determining the process for CAPE receiving an average score of 4.28. Another significant difficulty was D1 (difficulty in identifying the competencies to be assessed in PE), with an average score of 4.10. Other challenges received less than 30% agreement. Many scholars have yielded similar research results (Blegur et al., 2022; Ní Chrónín & Cosgrave, 2013; Silva et al., 2021; Veloo & Md-Ali, 2016). These challenges highlight the hurdles teachers encounter in adapting to competency-

based assessment, which is understandable given the relatively recent implementation of competency-based education reforms in Vietnam, starting in 2018 and extending to high schools from 2020.

5. Conclusion

Assessment reform plays a pivotal role in the teaching and learning process. This study provides an overview of the current state of CAHPE in northern mountainous Vietnam. While teachers demonstrate awareness of the concept, role, and importance of competency-based assessment, their practices do not fully align with these understandings. Furthermore, significant challenges, particularly in developing assessment criteria, persist. These findings necessitate collaborative efforts among professional groups, school boards, and educational departments to evaluate current assessment practices and optimize CAHPE critically. The insights from our research can inform policy revisions and enhance assessment practices in Vietnam's PE. Currently, many teachers lack a deep understanding of assessment philosophy, which leads to the limited use of modern and innovative assessment methods. Most assessments being applied remain traditional in nature. The solution to this issue lies in enhancing teachers' understanding of the philosophy behind assessment. This change must begin with their own awareness and mindset. Only when teachers recognize that this is a critical issue – vital for students' development and the future of the school – will they make a real effort to reform assessment practices toward a competency-based approach.

However, this is a challenging issue that requires time and sustained effort. Teachers must receive professional development and training on what competency-based assessment truly entails, what core competencies should be assessed, and how to design tests that evaluate students' higher-order thinking skills. A lack of motivation among teachers to innovate their assessment practices is another concern. Therefore, educational administrators must make active efforts to introduce policies, incentives, and regulations to encourage and support teachers in modernizing assessment approaches. Moreover, comparing our findings with similar data from other countries would be valuable, given the scarcity of large-scale data on CAHPE. Finally, professional development initiatives could benefit from the insights gained through intervention studies on CAHPE.

6. Acknowledgements

We extend our sincere appreciation to the primary school teachers who generously contributed their valuable responses to this analysis. Additionally, the authors would like to thank the editor and the anonymous reviewers for their valuable comments on this paper.

7. Declaration of Conflicting Interests

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

8. Funding

This research was funded by Thai Nguyen University and Thai Nguyen University of Education under grant number DH2023-TN04-02.

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Appendix 1
QUESTIONNAIRE ON THE CURRENT STATUS OF ASSESSING
AND EVALUATING PHYSICAL EDUCATION LEARNING
OUTCOMES IN HIGH SCHOOL BASED ON STUDENT
COMPETENCY

(For teachers teaching Physical Education)

In order to improve the quality of assessment and evaluation of Physical Education learning outcomes, please kindly provide your feedback on the following items by marking an "X" in the most appropriate option or writing additional comments in the blanks (...). Your feedback will significantly contribute to improving the teaching quality.

Question 1. Among the following interpretations of competency-based assessment, which one do you think is the most accurate? (Please circle a number, 5 - Strongly agree; 4 - Agree; 3 - Neutral; 2 - Disagree; 1 - Strongly disagree)

Variable	Concept	Level of Agreement				
		5	4	3	2	1
C1	Competency-based assessment involves making judgments about students' mastery of knowledge, skills, and attitudes to address assigned tasks.	5	4	3	2	1
C2	Competency-based assessment is the process of collecting and analyzing information to make judgments about students' application of knowledge, skills, and attitudes to address assigned tasks.	5	4	3	2	1
C3	Competency-based assessment is essentially the process of assessing students' learning competencies achieved.	5	4	3	2	1
C4	Competency-based assessment is the process of collecting and analyzing information to evaluate students' integrated application of knowledge, skills, and attitudes to solve complex assigned tasks in real or hypothetical contexts to meet competency goals.	5	4	3	2	1
C5	Competency-based assessment is the process of collecting and analyzing information about students' skills in effectively solving complex assigned tasks to meet competency goals.	5	4	3	2	1

Question 2. According to you, what role does competency-based assessment of students play in Physical Education? (Please mark an "X" in only one box)

- 2.1. Very important
- 2.2. Important
- 2.3. Neutral
- 2.4. Not really important
- 2.5. Not important

Question 3. Please indicate the importance level of each purpose of competency-based assessment in Physical Education teaching? (Please circle a number, 5 - Very important; 4 - Important; 3 - Neutral; 2 - Not really important; 1 - Not important)

Variable	Purpose	Importance Level				
		5	4	3	2	1
P1	Assessment for learners' progress	5	4	3	2	1
P2	Assessment for grading and ranking students	5	4	3	2	1
P3	Assessment for feedback on the subject	5	4	3	2	1
P4	Assessment to focus students on key subject content	5	4	3	2	1
P5	Assessment to encourage students to showcase their competencies	5	4	3	2	1
P6	Assessment to help students identify areas for improvement	5	4	3	2	1
P7	Assessment to motivate students to study better	5	4	3	2	1
P8	Assessment to help teachers identify and address students' learning difficulties	5	4	3	2	1
P9	Assessment to help teachers monitor and adjust teaching activities	5	4	3	2	1

Question 4. In Physical Education teaching, how often do you assess students based on their competencies? (Please mark an "X" in only one box)

- 4.1. Very frequently
- 4.2. Frequently
- 4.3. Occasionally
- 4.4. Rarely
- 4.5. Never

Question 5. Which methods do you use to assess students' learning outcomes in Physical Education teaching? (Please circle a number, 5 - Very frequently; 4 - Frequently; 3 - Occasionally; 2 - Rarely; 1 - Never)

Variable	Method	Usage Level				
		5	4	3	2	1
M1	Written tests	5	4	3	2	1
M2	Observation	5	4	3	2	1
M3	Q&A	5	4	3	2	1

M4	Portfolio assessment	5	4	3	2	1
M5	Assessment of student learning products	5	4	3	2	1
Other form (Please specify):.....						

Question 6. Which tools do you use to assess students' learning outcomes in Physical Education teaching? (Please circle a number, 5 - Very frequently; 4 - Frequently; 3 - Occasionally; 2 - Rarely; 1 - Never)

Variable	Tool	Usage Level				
T1	Questionnaires	5	4	3	2	1
T2	Oral examinations	5	4	3	2	1
T3	Short or daily logs	5	4	3	2	1
T4	Student portfolios	5	4	3	2	1
T5	Student work products	5	4	3	2	1
T6	Checklist	5	4	3	2	1
T7	Rating scales or observation sheets	5	4	3	2	1
T8	Rubrics	5	4	3	2	1
Other tool (Please specify):.....						

Question 7. According to you, what are the common difficulties encountered when implementing competency-based assessment in Physical Education? (Please circle a number, 5 - Strongly agree; 4 - Agree; 3 - Neutral; 2 - Disagree; 1 - Strongly disagree)

Variable	Difficulty	Level				
D1	Difficulty in identifying the competencies to be assessed in PE	5	4	3	2	1
D2	Difficulty in determining the process for competency-based assessment in PE	5	4	3	2	1
D3	Difficulty in establishing tasks for identifying competencies	5	4	3	2	1
D4	Difficulty in developing criteria for assessing students' competencies	5	4	3	2	1

D5	Low student engagement in assessment	5	4	3	2	1
D6	Overcrowded classes	5	4	3	2	1
D7	Time-consuming preparation and feedback	5	4	3	2	1
Other difficulties (Please specify):.....						

Please tell us a little about yourself:

Field of study:

Academic degree: Bachelor's Master's Ph.D.

Number of years teaching: