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Learning and Performance in School and Sport Contexts: A Comparative Vignette-Based Study

Apprendimento e performance nei contesti scolastici e sportivi: uno studio comparativo basato su vignette

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Abstract
The recognition of learning is an interpretive process through which teachers and coaches assign meaning to changes observed in learners and athletes. This study examines how professionals in school and sport contexts distinguish learning from immediate performance. A cross-sectional observational vignette-based study involved 113 professionals working in Lombardy, Italy: 52 physical education teachers and 61 coaches. Participants evaluated four vignettes representing different configurations of performance, error awareness, autonomy, adaptation, and transferability. For each vignette, they rated the learning attributed to the individual, the extent to which the observed outcome represented learning, and the perceived success of the educational activity. Teachers and coaches generally converged in recognising greater learning in situations characterised by awareness, autonomy, and adaptation. Their main differences concerned the weight assigned to immediately observable outcomes. Coaches considered outcomes more representative of learning in situations involving immediate performance improvement, whereas teachers placed greater emphasis on exploration, strategy reorganisation, and increasing autonomy. The largest differences emerged in judgements of outcome representativeness. The findings suggest that the recognition of learning is shaped by both the characteristics of the situation and professional cultures, and highlight the value of assessment practices that integrate performance, process, and adaptation.

Keywords: Learning; performance; assessment; adaptation

Riassunto
Il riconoscimento dell'apprendimento è un processo interpretativo attraverso il quale insegnanti e allenatori attribuiscono significato ai cambiamenti osservati negli studenti e negli atleti. Questo studio esamina i criteri utilizzati nei contesti scolastici e sportivi per distinguere l'apprendimento dalla semplice prestazione. È stato condotto uno studio osservazionale trasversale basato su vignette, che ha coinvolto 113 professionisti operanti in Lombardia, Italia: 52 insegnanti di educazione fisica e 61 allenatori. I partecipanti hanno valutato quattro vignette, costruite per rappresentare diverse configurazioni di prestazione, consapevolezza dell'errore, autonomia, adattamento e trasferibilità. Per ciascuna vignetta hanno indicato il grado di apprendimento attribuito, quanto l'esito osservato fosse rappresentativo dell'apprendimento e il successo percepito dell'attività educativa. Insegnanti e allenatori hanno mostrato una generale convergenza nel riconoscere maggiore apprendimento nelle situazioni caratterizzate da consapevolezza, autonomia e adattamento. Le differenze principali hanno riguardato il peso attribuito agli esiti immediatamente osservabili: gli allenatori li hanno considerati più rappresentativi dell'apprendimento nelle situazioni con un miglioramento immediato della prestazione, mentre gli insegnanti hanno dato maggiore rilievo all'esplorazione, alla riorganizzazione della strategia e alla crescente autonomia. Le differenze più ampie sono emerse nei giudizi sulla rappresentatività dell'esito. I risultati suggeriscono che il riconoscimento dell'apprendimento dipenda sia dalle caratteristiche della situazione sia dalle culture professionali e sottolineano l'importanza di pratiche valutative che integrino prestazione, processo e adattamento.

Parole chiave: Apprendimento; prestazione; valutazione; adattamento

1. Introduction

The recognition of learning constitutes an epistemic and pedagogical act through which a professional selects the relevant elements of a situation, assigns meaning to them, and formulates a judgement about the change observed. This process informs feedback, task regulation, assessment, and the design of subsequent learning experiences. The quality of professional observation therefore affects the educational opportunities offered to individuals and the criteria through which a transformation acquires value within an educational context (Sherin & van Es, 2009). Professional judgements are a central component of educational processes, as they influence decisions concerning feedback, the regulation of activities, assessment, and the planning of subsequent experiences (Fenwick, 2009; Hattie & Timperley, 2007). Such judgements do not arise solely from the observation of behaviour, but from the selection and interpretation of the information considered relevant within a given situation (Sherin & van Es, 2009). Research on professional expertise shows that professionals working in different contexts may attribute different meanings to the same observed events, according to the aims, practices, and forms of knowledge that characterise their field of activity (Carbonell et al., 2014; Reuker, 2017). Consequently, understanding which signals are regarded as indicative of learning represents an important step in analysing the criteria that guide educational action. In school and sport settings, these criteria contribute to defining what is recognised as progress, which transformations are valued, and which forms of evidence inform professional judgement (Stodter & Cushion, 2017). A comparative analysis of the interpretations formulated by teachers and coaches may therefore provide useful insights not only into the specific features of the two contexts, but also into possible areas of convergence in the development of assessment practices oriented towards learning. Contemporary educational practices place increasing emphasis on observable indicators, comparable outcomes, and evidence that can be documented immediately. The spread of cultures of measurement has strengthened the role of outputs in representations of educational success, encouraging an interpretation of learning centred on products, standards, and measurable performance (Biesta, 2009). Visible outcomes provide useful information about the execution of a task, whereas understanding transformation requires attention to the ways in which individuals perceive, interpret, correct, and reorganise their actions. The distinction between learning and performance may therefore provide a useful theoretical basis for addressing this issue. Performance refers to observable behaviour during a specific activity, whereas learning concerns relatively permanent changes in understanding, knowledge, and skills, which can be identified through retention and transfer (Soderstrom & Bjork, 2015). In the motor domain, delayed tests and transfer tasks are particularly sensitive indicators of the stability of learning, as they make it possible to observe the persistence and reorganisation of acquired skills (Kantak & Winstein, 2012). The final outcome represents only one possible manifestation of learning, which may also emerge through adaptation, self-regulation, and the reorganisation of action. The concept of adaptive expertise refers precisely to the capacity to combine efficiency and innovation by applying established knowledge to situations characterised by emerging demands and changing configurations (Carbonell et al., 2014). Environments that support reflection, autonomy, exploration, and responsibility encourage the development of flexible and transferable repertoires (Kua et al., 2021). This perspective is particularly relevant in motor and sport contexts, where effective action emerges from the continuous interaction between the individual, the task, and the environment. Expert competence includes sensitivity to available information, functional coordination, variability of solutions, and adaptation to changes in the situation (Seifert et al., 2013). Motor learning may therefore be interpreted as a progressive reorganisation of the perceptual and action system, capable of producing appropriate responses under different constraints (Renshaw et al., 2022). The ability to explore and select new possibilities for action represents an educational quality that extends beyond the simple reproduction of a previously demonstrated solution (Orth et al., 2019). School and sport are educational contexts characterised by specific aims, practices, and professional cultures. Teachers and coaches observe learning in relation to the particular demands of their respective professional settings. Consequently, the same behavioural signals may be interpreted differently and assigned different weight in the formulation of educational judgement. Differences between these professional repertoires may generate distinct forms of attention to the same behavioural cues. Against this background, the study addresses the following research question: How do physical education teachers and sports coaches differ in recognising learning when immediate performance does not fully reflect awareness of error, autonomy, adaptation, and transfer? The study has two objectives:

(1) to compare the two groups' ratings of attributed learning, outcome representativeness, and perceived educational success across four vignettes; and (2) to identify areas of convergence and difference in the signals they prioritise, including their final selection of the vignette considered to represent the most meaningful learning.

2. Materials and Methods

2.1 Vignette development and rationale

The study used a cross-sectional, comparative observational design based on vignettes to examine how physical education teachers and coaches recognise learning when immediate performance and learning-related processes provide different kinds of evidence. The instrument comprised four brief vignettes developed by the authors on the basis of research on the distinction between learning and performance (Soderstrom & Bjork, 2015; Kantak & Winstein, 2012), adaptive expertise (Carbonell et al., 2014), and professional noticing in educational settings (Sherin & van Es, 2009).

The construction of the vignettes followed a specific rationale: to present comparable situations in which immediate outcomes and indicators of learning-related change did not always coincide. Four theoretical dimensions informed their design: awareness of error, autonomy in action, capacity for adaptation, and transferability of skills. Each vignette represented a different configuration of these dimensions. Vignette 1 described stable performance alongside growing awareness of error and modification of action; Vignette 2 depicted immediate improvement followed by difficulty adapting when task conditions changed; Vignette 3 presented initially weak performance alongside exploration, strategy change, and increasing autonomy; and Vignette 4 described high performance based on reproducing a demonstrated solution, with limited understanding and transfer. Together, these scenarios made it possible to compare how professionals interpreted learning when success on the immediate task and evidence of a broader learning process converged or diverged. Table 1 summarises the scenario content and the theoretical dimensions represented.

Vignette	Scenario content	Observable performance	Indicators of transformation	Predominant dimension
1	During a precision task, Marta continues to achieve the same outcome. The teacher records stable performance. Marta progressively modifies her posture, gaze direction, and movement rhythm. At the end of the task, she states that she has understood the source of her error.	Stable	Awareness of error, regulation of action, perceptual-motor modification	Learning recognised through understanding of the process
2	During training, Andrea rapidly improves his outcome after receiving precise instructions from the coach. He correctly reproduces the proposed solution and completes the task successfully. When one condition of the exercise is changed, he continues to use the same solution, which is no longer fully appropriate.	High in the immediate situation	Limited flexibility, restricted transfer, dependence on the proposed solution	Effective performance with limited adaptation
3	During a group activity at school, Elena initially experiences several difficulties and makes errors. After several attempts, she stops, observes her classmates, and tries a different strategy. Her final outcome remains below that of the others, although she completes the task independently.	Partial	Exploration, change of strategy, autonomy, adaptation	Adaptive learning with an outcome that remains incomplete
4	During a sport exercise, Samuele achieves one of the best outcomes in the group and completes the task quickly. When asked to explain the strategy used and how he might modify it in a different situation, he reports that he simply repeated what had been demonstrated and finds it difficult to imagine an alternative solution.	High	Limited understanding, restricted transfer, low capacity for reorganisation	High performance with limited transformation

Tab. 1: Vignette Content and Represented Theoretical Dimensions

The descriptions were written in clear, contextually plausible language and kept comparable in length and narrative structure to reduce possible presentation effects. Before administration, the four vignettes were preliminarily reviewed by external observers, including physical education teachers and sports coaches, purposively selected on the basis of their professional qualifications and experience in their respective educational and sport contexts. This informal consultation aimed to examine the clarity, contextual plausibility, and professional relevance of the scenarios, as well as their coherence with the theoretical dimensions underlying the study. Particular attention was given to the distinction between immediately observable performance and indicators of learning-related change, including awareness of error, autonomy, adaptation, and transferability. The consultation was a preliminary review of the scenarios rather than a formal validation of the instrument. Using common, concise scenarios made it possible to maintain a consistent situational structure while varying the elements relevant to professional judgement. This approach is consistent with methodological recommendations for vignette construction in educational research and with previous cross-sectional comparisons of professional groups using standardised scenarios (Peckston et al., 2022; Skilling & Stylianides, 2020).

The sample comprised 113 professionals working in Lombardy, Italy, including 52 physical education teachers and 61 coaches. All participants were aged between 30 and 40 years, had at least five years of continuous professional experience in their role, and had been professionally active during the 12 months preceding data collection. Teachers were required to hold a position in physical education at a lower- or upper-secondary school. Coaches were required to hold a valid coaching qualification issued by a National Sports Federation, an Associated Sports Discipline, or a Sports Promotion Body recognised by the Italian National Olympic Committee. Professionals active in both settings were assigned to the group corresponding to their primary role, defined on the basis of the greater number of weekly working hours completed during the previous year. Participants were recruited through convenience sampling involving secondary schools, sports clubs, professional networks, and associations operating in Lombardy. Sample size was assessed through a sensitivity analysis. Assuming a two-tailed comparison between two independent groups, an alpha level of .05, statistical power of .80, and the observed group sizes, the sample was sufficient to detect a minimum standardised effect of moderate magnitude. The choice of parameters followed methodological recommendations concerning power estimation and the transparent reporting of sensitivity analyses (Kang, 2021). After each vignette, shown in Table 2, participants responded to three items concerning the degree of learning attributed to the person described, the extent to which the observed outcome was considered representative of learning, and the overall success of the educational activity, as reported in Table 3. Responses were recorded on a five-point Likert scale ranging from 1, not at all, to 5, completely. At the end of the questionnaire, each participant identified the vignette that they considered to represent the most meaningful learning. Two equivalent versions of the questionnaire, labelled A and B, were prepared. Both versions contained the same vignettes, items, and response options. The only difference concerned the order of presentation. Version A followed the sequence 1, 2, 3, 4, whereas Version B followed the sequence 2, 3, 4, 1. The two versions were used to counterbalance scenario order and reduce possible position effects on participants' judgements. Methodological research on vignette-based surveys indicates that presentation order may influence the evaluation of scenarios (Auspurg & Jäckle, 2017). Participation was voluntary and anonymous. Before completing the questionnaire, participants received information about the aims of the study, its expected duration, data processing procedures, and their right to withdraw before final submission of the questionnaire. Informed consent was obtained through a specific consent statement. Data were processed in aggregate form and stored securely in accordance with European data protection legislation.

Section	Content	Dimension assessed	Response format	Coding
Vignette 1	Stable outcome associated with greater awareness of error and modification of action	Learning involving transformation that is only weakly visible in performance	Three Likert-scale items	1 to 5
Vignette 2	Immediate improvement followed by difficulty adapting to a change in the task	Effective performance with limited transfer of learning	Three Likert-scale items	1 to 5
Vignette 3	Initially weak performance associated with exploration, strategy change, and autonomy	Adaptive learning with a partial final outcome	Three Likert-scale items	1 to 5
Vignette 4	High performance based on reproducing a previously demonstrated solution	Effective performance with limited understanding and transfer	Three Likert-scale items	1 to 5
Final assessment	Selection of the situation considered to represent the most meaningful learning	Hierarchy assigned to the different indicators of learning	Single choice among four vignettes	Vignette number

Tab. 2: Summary Structure of the Questionnaire

Item	Short wording	Construct
Q1	To what extent has the person learnt?	Recognised learning
Q2	To what extent does the outcome represent what the person has learnt?	Representativeness of the outcome
Q3	To what extent can the educational activity be considered successful?	Educational success

Tab. 3: Items Repeated after Each Vignette

3. Results

Responses to the 12 items were treated as ordinal variables for descriptive purposes. Group comparisons were conducted using Welch's t-test because the analysis focused on differences in mean scores and the test is robust to unequal variances. Hedges' g was reported as the measure of effect size, and Holm's correction was applied for multiple comparisons. Sensitivity analyses using Mann–Whitney U tests confirmed the main pattern obtained with Welch's t-tests. After Holm's correction, significant group differences remained for the representativeness of the outcome in Vignette 1, $U = 992.0$, adjusted $p < .001$, and Vignette 2, $U = 640.5$, adjusted $p < .001$, as well as for recognised learning in Vignette 3, $U = 2187.0$, adjusted $p = .001$. No other comparison remained statistically significant after correction. The final choice of the vignette associated with the most meaningful learning was examined through the frequency distribution within the two groups. Statistical significance was set at $p < .05$. The descriptive analyses showed a general convergence between teachers and coaches in recognising greater learning in the vignettes characterised by awareness, autonomy, and adaptation. The main differences concerned the value attributed to the immediately observable outcome. In the first vignette, coaches considered the outcome to be more representative of learning, with a mean score of 2.49 compared with 2.02 among teachers, $t(105.09) = -4.29$, $p < .001$, Hedges' $g = -0.78$. The largest difference emerged in the second vignette, in which coaches reported a mean score of 3.49 and teachers a mean score of 2.63, $t(110.89) = -6.92$, $p < .001$, Hedges' $g = -1.28$. In the third vignette, teachers attributed a higher level of learning than coaches, with mean scores of 4.48 and 4.03, respectively, $t(105.99) = 3.99$, $p < .001$, Hedges' $g = 0.75$. The remaining differences showed smaller effect sizes and were no longer statistically significant after Holm's correction. The final choice indicated a predominance of Vignettes 1 and 3 in both groups. Vignette 4 was not selected, whereas Vignette 2 was chosen only by a small proportion of coaches. The visibility gap was highest in Vignettes 1 and 3. In the first vignette, the mean value was 2.40 among teachers and 1.61 among coaches. In the third vignette, it was 2.08 among teachers and 1.33 among coaches. In the second vignette, coaches showed a negative mean gap of –0.49, indicating that the immediate outcome was considered more representative than the level of learning attributed. Among teachers, the corresponding value was 0.17. The fourth vi-

gnette produced values close to zero in both groups. For each vignette, a visibility gap was calculated by subtracting the score attributed to the representativeness of the outcome, Q2, from the score attributed to recognised learning, Q1. A positive value indicated that the participant recognised a level of learning greater than that made visible by the immediate outcome. A value close to zero indicated substantial correspondence between attributed learning and the observed outcome. A negative value indicated that the outcome was considered more representative than the level of learning recognised. This index provided a concise description of the distance between perceived transformation and its visibility in performance, offering an exploratory measure of the different ways in which teachers and coaches interpreted evidence of learning. Given the nature of difference scores, the index was used for descriptive and interpretative purposes and was not treated as an independent psychometric scale (Gollwitzer et al., 2014).

4. Discussion

The findings show convergence between teachers and coaches in recognising situations characterised by awareness, autonomy, and adaptation as the most meaningful examples of learning. This result supports a view of learning as the progressive capacity to orient oneself within a task, modify one's actions, and use the information available. Recent literature describes skill acquisition as a situated process in which competence emerges through exploration, self-regulation, and sensitivity to environmental constraints (Woods et al., 2021; Alali et al., 2024). Differences between the two groups mainly concerned the value attributed to the immediate outcome. Coaches considered the outcome to be more representative of learning in the first two vignettes, whereas teachers assigned greater value to the vignette centred on the reorganisation of strategy. This finding may reflect different professional cultures. Coaching often takes place in contexts in which effectiveness and speed of response are highly visible, whereas school settings tend to provide greater scope for understanding the learning process and individual progression. Nevertheless, studies on ecological approaches to coaching indicate growing attention to the design of environments that support adaptation and transfer, in addition to immediate success (Wood et al., 2023). The predominance of Vignettes 1 and 3 in the final selection further supports this interpretation. The visibility gap also suggests that teachers and coaches may recognise the same transformation through different professional frameworks. Teachers appear to place greater value on processes that precede full performance success, whereas coaches show closer alignment between learning and immediate outcome. This pattern is particularly relevant in the second vignette, in which effective performance retains strong informational value despite limited capacity for adaptation. The main contribution of the study lies in the distinction between the visibility of the outcome and the quality of the underlying transformation. This distinction provides an empirical basis for the development of assessment practices capable of integrating performance, adaptation, and understanding of action.

5. Limitations and Future Research

The study has several limitations that should be considered when interpreting the findings. Participants were recruited through convenience sampling and were drawn from a single Italian region, which limits the generalisability of the results to other geographical and organisational contexts. In addition, the use of vignettes makes it possible to investigate judgement criteria through controlled and comparable scenarios, but does not fully reproduce the complexity of real educational situations. The responses therefore reflect reported interpretations rather than decisions observed directly in professional practice. Future studies could combine vignettes with field observations, interviews, or verbalisation protocols in order to examine more closely the processes through which teachers and coaches assign meaning to indicators of learning. Further research could also investigate the role of professional experience, sporting discipline, and level of training in the development of judgement criteria.

6. Conclusions

The comparison between school and sport contexts highlights how learning may be recognised through a range of signals encompassing both observable outcomes and processes of adaptation, autonomy, and action reorganisation. The findings suggest the value of assessment models capable of integrating performance, process, and transfer, moving beyond an interpretation focused exclusively on immediate outcomes. Recent literature on assessment in physical education shows that assessment criteria acquire meaning within specific practices and local cultures (Tolgfors & Barker, 2023). Research on transfer between sport and school also indicates that competences and learning become recognisable when supported by explicit educational structures and opportunities for reflection and re-elaboration (Martin et al., 2022). From an operational perspective, the findings support the development of observation tools that integrate action effectiveness, understanding of error, decision-making autonomy, and adaptation. Such integration may encourage dialogue between professionals working in different settings and support models of intervention that are transferable across school, sport, and other educational environments. Professional communities represent a promising means of developing shared language and forms of adaptive expertise that are sensitive to contextual characteristics (Parker et al., 2022). Making explicit the criteria through which learning is interpreted and assessed is therefore an important condition for developing educational practices capable of recognising the quality of transformation beyond immediately observable performance.

Ethical considerations

Participation was voluntary and anonymous. All participants received information about the aims of the study, the procedures involved, data processing, and their right to withdraw before submitting the questionnaire. Informed consent was obtained from all participants. The study involved adult professionals, anonymous questionnaire data, and no experimental intervention or collection of sensitive personal data. In accordance with the institutional procedures applicable at the time of data collection, formal ethical approval was not required.

References

Alali, N. N., Carson, H. J., & Collins, D. (2024). A pragmatic approach to skill acquisition for physical education: Considering cognitive and ecological dynamics perspectives. *Quest, 76*(2), 227–246. https://doi.org/10.1080/00336297.2023.2298931

Auspurg, K., & Jäckle, A. (2017). First equals most important? Order effects in vignette-based measurement. *Sociological Methods & Research, 46*(3), 490–539. https://doi.org/10.1177/0049124115591016

Biesta, G. (2009). Good education in an age of measurement: On the need to reconnect with the question of purpose in education. *Educational Assessment, Evaluation and Accountability, 21*(1), 33–46. https://doi.org/-10.1007/s11092-008-9064-9

Carbonell, K. B., Stalmeijer, R. E., Könings, K. D., Segers, M., & van Merriënboer, J. J. G. (2014). How experts deal with novel situations: A review of adaptive expertise. *Educational Research Review, 12*, 14–29. https://doi.org/10.1016/j.edurev.2014.03.001

Fenwick, T. (2009). Making to measure? Reconsidering assessment in professional continuing education. *Studies in Continuing Education, 31*(3), 229–244. https://doi.org/10.1080/01580370903271446

Gollwitzer, M., Christ, O., & Lemmer, G. (2014). Individual differences make a difference: On the use and the psychometric properties of difference scores in social psychology. *European Journal of Social Psychology, 44*(7), 673–682. https://doi.org/10.1002/ejsp.2042

Hattie, J., & Timperley, H. (2007). The power of feedback. *Review of Educational Research, 77*(1), 81–112. https://doi.org/10.3102/003465430298487

Kang, H. (2021). Sample size determination and power analysis using the G*Power software. *Journal of Educational Evaluation for Health Professions, 18*, Article 17. https://doi.org/10.3352/jeehp.2021.18.17

Kantak, S. S., & Winstein, C. J. (2012). Learning–performance distinction and memory processes for motor skills: A focused review and perspective. *Behavioural Brain Research, 228*(1), 219–231. https://doi.org/10.1016/-j.bbr.2011.11.028

Kua, J., Lim, W. S., Teo, W., & Edwards, R. A. (2021). A scoping review of adaptive expertise in education. *Medical Teacher, 43*(3), 347–355. https://doi.org/10.1080/0142159X.2020.1851020

Martin, N., Camiré, M., & Kramers, S. (2022). Facilitating life skills transfer from sport to the classroom: An intervention assisting a high school teacher-coach. *Journal of Applied Sport Psychology, 34*(6), 1077–1101. https://doi.org/10.1080/10413200.2021.1917016

Orth, D., van der Kamp, J., & Button, C. (2019). Learning to be adaptive as a distributed process across the coach–athlete system: Situating the coach in the constraints-led approach. *Physical Education and Sport Pedagogy, 24*(2), 146–161. https://doi.org/10.1080/17408989.2018.1557132

Parker, M., Patton, K., Gonçalves, L., Luguetti, C., & Lee, O. (2022). Learning communities and physical education professional development: A scoping review. *European Physical Education Review, 28*(2), 500–518. https://doi.org/10.1177/1356336X211055584

Peckston, D. C., Urwin, R., McMullan, R., & Westbrook, J. (2022). Student and clinician perceptions of medical student mistreatment: A cross-sectional vignette survey. *BMJ Open, 12*(9), Article e061253. https://doi.org/-10.1136/bmjopen-2022-061253

Renshaw, I., Davids, K., O'Sullivan, M., Maloney, M. A., Crowther, R., & McCosker, C. (2022). An ecological dynamics approach to motor learning in practice: Reframing the learning and performing relationship in high performance sport. *Asian Journal of Sport and Exercise Psychology, 2*(1), 18–26. https://doi.org/10.1016/-j.ajsep.2022.04.003

Reuker, S. (2017). The noticing of physical education teachers: A comparison of groups with different expertise. *Physical Education and Sport Pedagogy, 22*(2), 150–170. https://doi.org/10.1080/17408989.2016.1157574

Seifert, L., Button, C., & Davids, K. (2013). Key properties of expert movement systems in sport: An ecological dynamics perspective. *Sports Medicine, 43*(3), 167–178. https://doi.org/10.1007/s40279-012-0011-z

Sherin, M. G., & van Es, E. A. (2009). Effects of video club participation on teachers' professional vision. *Journal of Teacher Education, 60*(1), 20–37. https://doi.org/10.1177/0022487108328155

Skilling, K., & Stylianides, G. J. (2020). Using vignettes in educational research: A framework for vignette construction. *International Journal of Research & Method in Education, 43*(5), 541–556. https://doi.org/10.1080/-1743727X.2019.1704243

Soderstrom, N. C., & Bjork, R. A. (2015). Learning versus performance: An integrative review. *Perspectives on Psychological Science, 10*(2), 176–199. https://doi.org/10.1177/1745691615569000

Stodter, A., & Cushion, C. J. (2017). What works in coach learning, how, and for whom? A grounded process of soccer coaches' professional learning. *Qualitative Research in Sport*, Exercise and Health, 9(3), 321–338. https://doi.org/10.1080/2159676X.2017.1283358

Tolgfors, B., & Barker, D. (2023). The glocalization of physical education assessment discourse. *Sport*, Education and Society, 28(1), 1–16. https://doi.org/10.1080/13573322.2021.1967923

Wood, M. A., Mellalieu, S. D., Araújo, D., Woods, C. T., & Davids, K. (2023). Learning to coach: An ecological dynamics perspective. *International Journal of Sports Science & Coaching, 18*(2), 609–620. https://doi.org/-10.1177/17479541221138680

Woods, C. T., McKeown, I., O'Sullivan, M., Robertson, S., & Davids, K. (2020). Theory to practice: Performance preparation models in contemporary high-level sport guided by an ecological dynamics framework. *Sports Medicine Open, 6*, Article 36. https://doi.org/10.1186/s40798-020-00268-5

Woods, C. T., Rudd, J., Gray, R., & Davids, K. (2021). Enskilment: An ecological-anthropological worldview of skill, learning and education in sport. *Sports Medicine Open, 7*, Article 33. https://doi.org/10.1186/s40798-021-