

physical education students in a school setting. Data were collected using participant and primary researcher written reflections and semistructured interviews. The results demonstrated major challenges facing PETE students when implementing an NLP. Participants experienced difficulty detecting the less predictable pupil responses that emerged from the game structures they created. They also had difficulty manipulating constraints to allow problem-solving behavior to emerge through the natural, exploratory learning processes underpinning the CLA. These study findings can be used to inform and improve the design and delivery of PETE programs in supporting students to effectively implement an NLP.

Reflecting on Practice: An Exploration of NLP in Games Teaching

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Despite the popularity of “alternative” pedagogical methodologies such as teaching games for understanding (TGfU) and the constraint-led approach (CLA) in academia, there is still limited take-up by practitioners (Almond, 2010). Additionally, when they do try to adopt new methodologies, there are question marks regarding the capability of teachers to faithfully adopt the key principles in their practice (Butler, 2014). One reason for this challenge may be a disconnect between learning about new methodologies in a sterile lecture theatre and delivering them in complex environments like schools. To address these challenges, it has been suggested that researchers and practitioners need to work closely together. One idea is for researchers to provide tools to support delivery in practice. One useful tool could be a lesson self-checklist based on the theoretical framework underpinning the methodology. To that end, this study aimed to examine the pedagogy of an experienced physical education teacher in an 8-week volleyball unit delivered to a Year 11 group. The lead researcher observed all sessions live or video-recorded and took field notes in real time. For each lesson, the teacher completed the Nonlinear Pedagogy Lesson Reflection Tool (Chow et al., 2015). Weekly postlesson meetings were held to review findings and plan upcoming sessions. Reflections revealed that the teacher based his learning design on the methodological principles of CLA and TGfU. Key findings centered on time as a constraint for learning, the use of reflective questioning and instructional constraints, the

challenge of designing representative tasks, manipulating task constraints, promoting variability in learning, individualizing learning, and nonlinearity in progress. The collaborative review process provided a framework for evaluating the teacher–environment interaction and enabled enhanced delivery of nonlinear pedagogically based practice through CLA and TGfU.

Evaluating a 12-Week Games-Based Training Program to Improve Cricket Batting Skill

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Although a constraints-led approach (CLA) to skill acquisition is different from teaching games for understanding (Renshaw et al., 2015), the theoretical underpinnings of CLA can be utilized when designing games-based training approaches. This study examined whether a games-based training design, underpinned by CLA, was more effective at developing cricket batting skill than a more traditional technically focused coaching approach.

Sixteen under-15 skilled cricket batters participated in a 12-week intervention study and were randomly allocated to a traditional or experimental training group. The experimental group participated in activities with manipulated rules, equipment, and outcome goals, while the traditional group focused on optimizing technical batting skill processes. Both groups completed two 2-hr sessions per week, bookended by a preintervention and post-intervention batting skills test. This test involved facing 18 balls delivered by bowlers, with the number of successful scoring shots, total runs scored, attacking strokes played, and quality of bat–ball contact recorded.

An analysis of variance was used to examine between- and within-group differences over time. The experimental group (CLA) demonstrated an increased number of successful scoring shots (3.88 vs. 6.63), and increased number of runs scored (11.63 vs. 20.7), and an improvement in the quality of bat–ball contact (1.26 vs. 1.52) after intervention, while there was no change in the number of attacking strokes played (72.37% vs. 74.63%). These numbers were significantly greater than those for the traditional group, which revealed no changes in the number of successful scoring shots played (4.62 vs. 3.75),

the number of runs scored (10.25 vs. 10.00), the quality of bat–ball contact (1.26 vs. 1.29), or attacking strokes played (77.78% vs. 78.87%).

Skilled U15 players significantly improved facets of their batting using a games-based training approach, while a more traditional training approach did not lead to improvements. Training using a systematic approach to manipulating constraints is suggested to benefit the overall development of a batter.

Manipulating Goal Posts Significantly Impacts Tactical Behaviors in Small-Sided Football Games

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In team sports, goal target manipulation is 1 of the key task constraints promoted by coaches. However, a clear understanding of the effect of such manipulations on team-adaptive behaviors is needed. Here we synthesize how the number and size of goal targets and players' ages impact collective measures of tactical behaviors in football. Tactical behaviors were measured by considering the spatial-temporal relations between players in effective contexts of performance. Results revealed that the manipulation of the number of goal targets (from 1 goal + goalkeeper to 3 minigoals) increased the distance between the geometrical center of each team and decreased the relative stretch index between teams. Interestingly, an increase in the number of goalposts positioned over the end line was associated with longer periods of time played in defensive sectors and lateral channels than when only 1 goal + goalkeeper was used. Also, lack of goalposts promoted higher variability in teams' spatial distribution than when 2 lateral mini-goalposts or 1 goalpost + goalkeeper were used. Worthy of note is that players' age modulated the effects of manipulating the number of goalposts used in practice. A significant interaction between number of goal targets and age was observed in the ratio between the width of attacking/defending teams. Performance of older players expressed a higher width ratio between teams when playing with a higher number of goal targets compared with the youngsters. Also, manipulation of goal target size disclosed a differential

effect of regulation size in comparison with 7-a-side and 5-a-side goal sizes. Whereas official goal target size afforded a higher number of shots from different field locations, 7-a-side and 5-a-side goal target size induced a greater frequency of shots from central subareas of the field requiring a greater buildup of play to shoot at goal.

Players' Relative Position to Characterize the Affordances Landscape in Football

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In football, just like in most team sports, one of the ball carrier's tasks is to seek and seize opportunities to make the ball get closer to the opposing goal by means of in-depth (i.e., toward the end line of the opposing team) passes to a support player located "within" the opposing defense. And it is the players' (e.g., teammates and opponents) dynamics, in the continuous adaptation to the behavior of others demanded in such competitive environments, that lead to such opportunities. In this study, we aim to describe the ball carrier landscape of in-depth passing affordances that emerge for each attacking phase. This landscape was built upon a geometric Figure (similar to a diamond shape), which is defined by the ball carrier, the passing target, and the 2 nearest defenders' relative positions and is updated in a 1-Hz rate. For this purpose, the players and ball x and y coordinates were captured with an automatic video-tracking system. It was also hypothesized that the width of this diamond shape can point out in-depth passing opportunities with high success probability. Additionally, the integration of both defenders and ball estimated positions in the next second may lead to a more accurate indicator. Results identify pitch areas where the in-depth pass opportunities occur more often. It is by overlaying such pitch areas that the ball carrier in-depth pass affordances landscape is characterized.

Symposium: Personality in Team Sport: A Coach and Athlete Perspective

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Personality plays a substantial role in team sport, particularly when considering the perspectives of coaches and athletes and the overall coach–athlete