

# SUSTAINABILITY WITHIN HEALTH AND WELLBEING AND PHYSICAL EDUCATION

*Kristy Howells and Alison Morag Murray*



The article shares what we have learned from embedding sustainability into the curriculum areas of physical education (PE) and health and wellbeing (H&W). For this article, we understand sustainability as embodied and dynamic practice within education encompassing sustainable development, global citizenship and outdoor learning (Scottish Government, 2012). We recognise continuing efforts towards sustainability and climate change (DfE, 2022) and acknowledge sustainability as interpreted through a society-nature relationship (Ruggerio, 2021) and, indeed, as a concept to be used at the discretion of many (Ramsey, 2015).

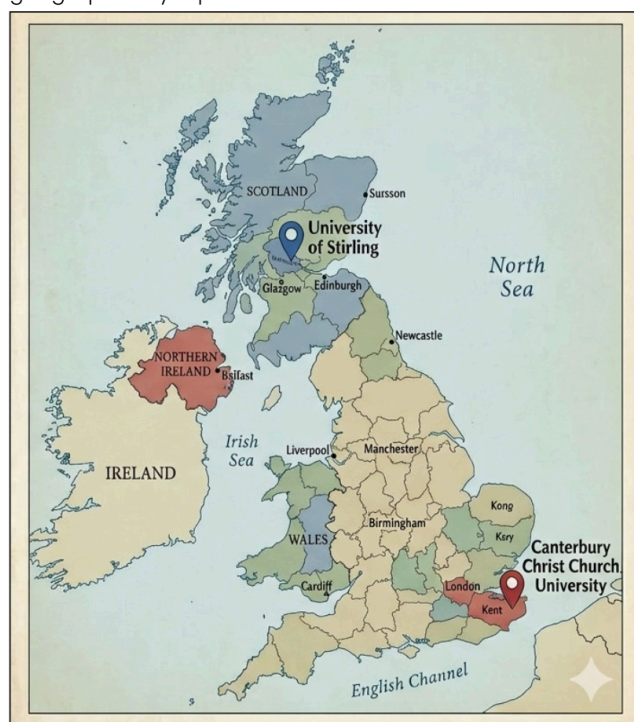
## CONTEXTS

This is our first year of embedding sustainability into our respective teaching. We approach the topic from as far north and as far south as you can almost be in the UK (see Figure 1). Despite different curricula, our approaches were strikingly similar.

Our northern setting is the University of Stirling, in Scotland, where PE sits within the area of health and wellbeing (H&W). H&W is not one subject: it is organised into six areas, including: mental, emotional, social and physical wellbeing; planning for choices and changes; physical education, physical activity and sport; food and health; substance misuse; and relationships, sexual health and parenthood (Scottish Government, 2026). The resources that support these areas of learning focus on “Responsibility for all... making the links... making it work. Learning through health and wellbeing promotes confidence, independent thinking and positive attitudes and dispositions” (Education Scotland, 2026).

Our southern setting is Canterbury Christ Church University, in England, where PE is currently a stand-alone subject area (DfE, 2013). (We state ‘currently’ as we are aware that

**Figure 1:** The distance between our contexts is geographically represented.



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the new curriculum for England will be with us from next year and will be statutory from 2028.) In its current form, PE focuses on: competence to excel in a broad range of activities; being physically active for sustained periods of time; engaging in competitive sports; and leading healthy active lives.

For this academic year (2025–2026), we have implemented our curriculums through various themes. A key theme is that of sustainability in PE/H&W, with our students coming from a range of disciplines: sport science; physical education and sport science; sport coaching; sport management; sport rehabilitation and therapy; and secondary and primary physical education. Within this theme, we have focused on the use of spaces and places, extending H&W beyond the classroom to be more sustainable (e.g. Murray *et al.*, 2025a). We also share curriculum-making and enacting with students, wherein principles of curriculum-making are framed ecologically (Priestley *et al.*, 2021). These ideas are explored in and around various educational environments through a justice orientation (e.g. Murray *et al.*, 2025b). We use this social justice lens to ensure that there is an equitable approach to sustainable movement opportunities, through the approach of critical thinking. Being responsive to context as part of pedagogy (Mannion *et al.*, 2012) ensures that issues are meaningful for respective stakeholders.

One of the conceptual frames we considered is based on complexity thinking and the unpacking of “wicked problems” (Chambers, 2020). Wickedness is a multifaceted concept, which can be used to view issues and facilitate discussions around them (Crilly, 2025). Ensuring sustainability is a wicked problem: it is complex, uncertain and without a single solution. Across our learning and teaching, we explored how PE and H&W can become powerful places where the habits, behaviours and decisions are considered through a sustainability orientation. We believe that our subjects can help students to develop the knowledge, skills, values and agency that will enable them to tackle this wicked problem.

## INFLUENCES

We draw on the work of the International Association of Physical Education in Higher Education (AIESEP), which hosted a specialist seminar on *Future Matters: Reimagining Physical Education for a Changing World*. The seminar highlighted that we are living in an era of unprecedented change and that integrating sustainability issues into education is an urgent necessity to address pressing

social, economic and environmental challenges (Schnitzler, Chambers and Lefèvre, 2026). These authors propose that there are “three interconnected pillars: curriculum design, pedagogical approaches and assessment methods” (Schnitzler, Chambers and Lefèvre, 2026, p.4).

We were also influenced by Scotland’s initial teacher education process, where learning for sustainability commences from the outset. Learning for sustainability is a whole school approach that enables schools and their wider communities to build the values, attitudes, knowledge, skills and confidence to develop practices and take decisions that create a more sustainable and equitable world (Scottish Government, 2023). *The Learning for sustainability action plan 2023 to 2030* “aims to build an inspiring movement for change so that every 3 to 18 place of education becomes a sustainable learning setting by 2030”. Within teacher education, learning for sustainability is framed through a reflective and contextually informed approach to support students within varying ecological settings (Rushton *et al.*, 2026). As such, developing curriculum makers explore and build understanding through a series of contextually relevant, relatable and meaningful questions. As university campuses are audited for ways to raise awareness of sustainability and put it into meaningful practice, students are now competent in considering school placements as wider environments, beyond their classrooms.

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In Scotland, learning for sustainability policy transcends the country for a better world (Scottish Government, 2023) “where learners are educated through their landscape and understand their environment, culture and heritage; where they develop a sense of place and belonging to their local, national and global community, and have a deep connection to the natural world (Scottish Government, 2012).



## APPROACHES

We wanted to share our three overlapping approaches, as influenced by the Schnitzler, Chambers and Lefèvre pillars of curriculum design, pedagogical approaches and assessment methods, with the intention that this might help others who are teaching within higher education or other phases. We also believe that the three pillars can be applied to all phases of curriculum design.

Schnitzler, Chambers and Lefèvre (2026) note that learning through these approaches in PE and H&W is iterative, creative and human-centred problem-solving. They suggest that there are stages within this process: understanding, observing, defining, ideating, prototyping and testing. In practice, this means moving away from fixed answers and towards open-ended problems and challenges for students to solve. We need to build in more decision-making tasks and integrate more systems-thinking to link PE to health, the environment and society. We also need to think about who benefits and who is excluded. For example, instead of teaching football skills in PE, we need to be challenging students to design a football session that is inclusive, uses minimal resources and is sustainable over time. This aspect of sustainability over time can be considered in terms of participation levels, enjoyment, engagement and willingness to return to another session.

It is important to note that sustainability is not just about one future: multiple possible futures will be influenced by the geographical location where PE is taught. However, those potential futures can be shaped by teachers' and

students' values, technologies and social systems. This is where curriculum design can be novel and exciting. By using more scenario-based learning, where we ask students to design PE lessons for different futures or critique models more within lessons, we enable them to develop the skills they will need in future, such as adaptability, critical thinking and other forms of literacy (such as health literacy). For example, problem-solving tasks could include designing a H&W lesson for a low-resource scenario or deciding how PE might look in a high-tech environment. Key sustainability concepts, such as reciprocity (giving back to nature as much as we take), could be introduced to connect wider policies to schools' local contexts (Murray, Adams and Nugent, 2024).

## IN PRACTICE

Sustainability is something you design for, not just learn about. In practice, learning in PE or H&W could be structured in the following way.

- *Understand:* What is sustainable in this activity?
- *Observe:* Who participates and why? Who drops out and why?
- *Define:* What is the problem?
- *Ideate:* What solutions can you suggest?
- *Prototype:* Which new versions of activities will you trial?
- *Test:* What works? What do you need to refine?

Practically, therefore, instead of playing basketball, students would redesign basketball so that more people can participate for longer.



We also used four key elements to guide our teaching (see Figure 2):

- *Participation*: Who is included?
- *Practice*: Is it safe? Is it repeatable? (The safety element is particularly important when we are considering whether Physical Education is for Life (Jess *et al.*, 2023) and how we can ensure lifelong and life-wide practice.)
- *Environment*: What spaces and resources can we use? (Murray *et al.*, 2025a)
- *Behaviour*: What influences people's attitudes and habits? (We know that the primary age phase is a key time for habit formation (Howells, 2012).)

In practice, this meant we looked at who is participating, whether they can sustain the activity, whether it needs to be adapted, whether it is efficient and responsible, and whether it builds habits. In our basketball example, students redesigned the game so that their answers looked like this:

- *Participation*: smaller teams to enable more touches and to increase participation throughout the game,

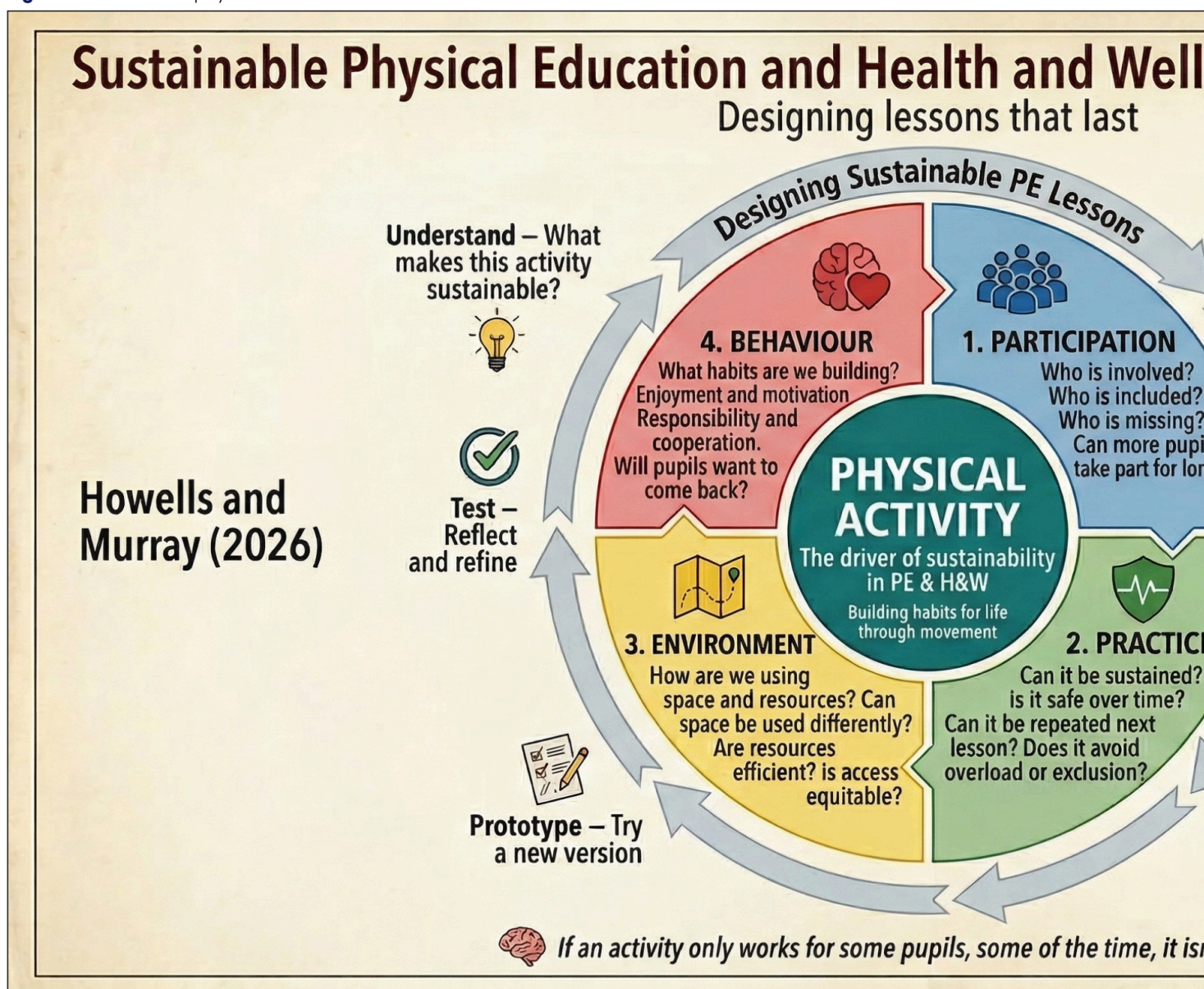
increasing enjoyment and motivating participants to want to come again.

- *Practice*: reduce fatigue and collisions, enabling both game play and skills development within the session (following a Teaching Games for Understanding approach).
- *Environment*: better use of space.
- *Behaviour*: better cooperation, including communication, focusing on appreciating assists as well as baskets.

This approach focuses on what people can do when considering sustainability, but without ignoring planetary concerns. Through using wicked problems and Design Thinking scenarios, our students realised that people – themselves and those they will go on to teach, coach or treat – are the most important element in making a difference.

They also noted that physical activity is the most important component when sustainability in PE and H&W is discussed. Farand (2026) noted this most recently in a newspaper

**Figure 2:** Sustainable physical education in action.



report, stating that reduced physical activity due to global heating will lead to a rise in health issues, and that it is projected that reduced physical activity could contribute to half a million additional premature deaths per year by 2050. She reported that each additional month with a temperature averaging above 27.8 degrees centigrade will increase global physical inactivity by an average of 1.5 per cent. As we know, such inactivity then leads to increased health risks, such as type 2 diabetes and cardiovascular disease. This aligns with the World Health Organisation Global Action Plan for Physical Activity, which highlights the importance of active societies, environments, people and systems.

We applied this to curriculum design, by moving away from teaching an activity to teaching how activity is sustained in systems, linking this to sport management as well as to Education Scotland's focus of everyone being responsible for learning. Students then looked at how to design school physical activity systems, walking and cycling plans, and community activity plans, identifying which stakeholders need to be involved.

## being Curriculum in Action

Observe – Who participates?  
Who drops out?



Define – What is the problem?



Ideate – What could we change?

Can't sustainable.

### TRY THIS TOMORROW

**Traditional lesson:**  
5v5 basketball game

**Sustainable redesign:**  
3v3 small-sided games.  
Multiple courts.  
Rotation system.

- ✓ More touches → increased participation.
- ✓ Reduced fatigue → safer practice.
- ✓ Better space use → improved environment.
- ✓ More teamwork → positive behaviours



**Think systems, not just sessions**

- Active: People.
- Environments.
- Societies.
- Systems.

(WHO Global Action Plan for Physical Activity)

## SUMMARY

In conclusion, what we have learnt is that there are many wonderful ways to weave sustainability into PE and H&W through the everyday pedagogical models that we would use with students. This means we are not reinventing the wheel or bolting on work; we are just adapting our language to connect to previous models. For example, in Teaching Games for Understanding (Bunker & Thorpe, 1982), we can add more sustainability language into decision-making, skill execution and evaluation. Co-operative Learning (Slavin, 1995) already asks us to foster more positive interdependence, individual accountability, collaboration and reflection. We also found the Student Designed Games model (Hastie, 2010) particularly effective as it enabled us to encourage learner autonomy and ownership of the learning process. This was great for setting 'wicked problems' or for enacting Design Thinking. We acknowledge that connections to sustainability are not limited to these three models and suggest you seek to incorporate it within your favourite models too. Importantly, this is not about adding something new; it is about adapting what you already do. In that way, sustainability becomes intrinsic to PE and H&W. ■

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**Kristy Howells** is Professor in Children's Health and Movement at Canterbury Christ Church University.

**Dr Alison Morag Murray** is Lecturer in Primary Education, Health and Wellbeing at the University of Stirling.