

Research Space

Journal article

The embodiment of equitable ways to develop agentic wellbeing through movement maximising personal and general spaces - re-tooling affordances as drivers of social justice

Murray, A., Murray, P., Howells, K., Uthmani, N. and McMillan, N.

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Abstract:	<p>This paper explores physical affordances—features and practices supporting activity—and scrutinizes their accessibility to promote principle-led equity in movement. By examining how being active underpins capabilities essential for living well, a holistic perspective on using 'self-space' and surrounding space is presented. In line with the World Health Organization's (2021) mandate for fairness in physical activity programming, a justice-oriented leadership approach across health and education is emphasized. The application of JEDI principles (justice, equity, diversity, and inclusion) to physical movement highlights constructs of autonomy and agency, enabling individuals to make choices and act to invoke change (Virenque and Mossio, 2024). The concept of 'constraints' is extended from therapeutic roots (Taub et al., 1993) to adaptive movement facilitation (Newell, 1986). Constraints-informed pedagogies enhance embodied learning, fostering autonomy through interactive movement generation in physical education (Renshaw and Chow, 2018). Being well is understood as a composite of physical, cognitive, and emotional health—is recognized as a complex yet integral construct (Spratt, 2016; Ryff, 2014). Physical activity is shown to significantly influence health behaviours, encompassing mental and physical wellbeing (Liu et al., 2024). Aligning with Education Scotland's curricular policy (2023) this paper adopts the term 'wellbeing' to consolidate encompassing perspectives.</p>

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10 **Abstract**

11 This paper explores physical affordances—features and practices supporting activity—and
12 scrutinizes their accessibility to promote principle-led equity in movement. By examining how
13 being active underpins capabilities essential for living well, a holistic perspective on using ‘self-
14 space’ and surrounding space is presented. In line with the World Health Organization’s (2021)
15 mandate for fairness in physical activity programming, a justice-oriented leadership approach
16 across health and education is emphasized. The application of JEDI principles (justice, equity,
17 diversity, and inclusion) to physical movement highlights constructs of autonomy and agency,
18 enabling individuals to make choices and act to invoke change (Virenque and Mossio, 2024).
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24 2014). Physical activity is shown to significantly influence health behaviours, encompassing
25 mental and physical wellbeing (Liu et al., 2024). Aligning with Education Scotland’s curricular
26 policy (2023) this paper adopts the term ‘wellbeing’. It remains critically aware of tensions
27 across educational policy agendas as regards the genuine wellbeing of children (Spratt, 2017).
28 As such it offers means for agency development so that children are enabled to seek
29 sustainable means to enjoy healthy active living.
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34 Keywords: wellbeing, education, justice, space

35
36 **Context**

37 The United Nations positions inequity as the gravest of global educational issues (Scmelkes,
38 2020). Alongside a collective pursuit of justice sustaining approach to education in general
39 (Hart, 2019) is that related to movement. Whitfield states that the absence of access to safe
40 and nearby places to be physically active may add to racial and ethnic disparities (2015). As
41 such, one means to attempt to empower students (young citizens) concerning their
42 embodied sense of self, is through physical activity-encompassing pedagogical practices.
43 These can be adapted to other settings e.g. where children experience learning in other
44 settings (such as home/community schooled).
45
46

47 As a group of educators in higher education, we situate our intersecting practices of
48 leadership and contextualised educational practice. Our work through the JEDI framework
49 is to increase the presence of physically active learning (PAL) into school curriculum practice
50 and diversify the ways that PAL is taught (e.g. through outdoor spaces, different movement
51 groups, knowledge of how the body moves, dance, and other learning opportunities.
52
53

54 **Introduction**

55 Movement plays a crucial role in supporting physical, mental, and social health and wellbeing
56 (Jaekel, 2024). With the goal of universal access to some form of movement, movement is
57 acknowledged as a fundamental need and not a privilege (Matias and Pigginn, 2022). What
58 hinders the volition for and propensity to be actively engaged is undoubtedly a multifaceted
59 problem.
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3 The principles of justice, equity, diversity, and inclusion (JEDI) provide explicit and
4 systematic means to sustain good practice. Good practices contain all these features.
5 However, there may be times when practitioners remain unaware of what is unseen, and
6 thereby unknown. This is further compounded with the added element of considering the
7 environment within and around the context of where learning takes place, including prior
8 perceptions and/or experiences held by involved parties.
9

10 This paper proposes a way for educators and learners to make the most of what each brings
11 to the learning experience. The (physical) environment can then be utilised to take full
12 advantage of this potentially transformative interplay across said elements. As we wish for
13 our principled approach to support learning and teaching in both primary and secondary
14 education, we enter this journey through initial teacher education. The stakeholders in this
15 context, therefore, are colleagues involved in supporting this pursuit. Our principled action
16 pedagogical approach deploys PAL incidentally and intentionally to offer a variety of means to
17 build positive self-regard, in parallel with movement competence. Inequality in accessing non-
18 mandatory physical activity pivots around location, space (Barboza et al., 2024), and as we
19 posit, the much needed physical literacy to be able to do so (Whitehead, 2010). Identity is
20 central to human experience (Crocetti et al., 2022). We embrace JEDI principles to inform our
21 planning and implementation practices. Educationally, this fosters a socially relevant
22 approach, whereby learners and educators consider and co-construct equitable means to
23 include all participants, diverse in their ways of thinking, of being; and of becoming, through
24 various inclusive ways to enter, contribute to, and benefit from participation. JEDI curriculum
25 initiatives seek to empower students through the creation of safe places to be seen and heard,
26 as they build understanding, and competencies, through a justice orientation (Shields, 2022).
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29

30 Health equity ensures that this notion stays as fair as possible. Health equity is both a process
31 and outcome (Braveman et al., 2017). Physical activity aids good health (World Health
32 Organisation, 2020; 2024) with potential to raise child self-esteem (Howells and Bowen, 2016).
33 And throughout the lifetime (McAuley, et al., 2005). Physical activity is every child's right
34 (United Nations, 1989). However, this may mean different things for children in different
35 contexts. Healthwise, amongst a myriad of factors that influence and impact quality of life,
36 such as relationships, health, what we do, where we reside, finance, nutritional habits (ONS,
37 2022), three main factors emerge; sedentary behaviours, patterns of sleep, and physical
38 activity (Groves et al., 2024). Equitable health and wellbeing draw from factors "deeply rooted
39 in personal and societal values, such as social justice, safety, prosperity, civic engagement,
40 and environmental integrity" (Pronk et al., 2021;1). The use of space and how we experience
41 it reflects in part who is doing/not doing what or where. It is only by acknowledging the
42 unfairness of access to space, and affordances that facilitate wellbeing, and opportunities to
43 have developed proficiency to do so, that we can enter our JEDI principled journey to improve
44 our collective practice to take and celebrate ownership of movement for wellbeing purposes.
45 We acknowledge all presiding practices toward this pursuit.
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49 Through a preliminary social cognitive framework the interaction of personal,
50 social/environmental and behavioural factors make up the personal construct of self-efficacy
51 (Bandura, 1977). Pedagogically there are ample opportunities to interweave planned through
52 emergent opportunities to construct efficacy alongside the learning. The embedding of
53 constructive means to build knowledge and resilience across physically active learning is one
54 such example.
55
56

57 There are a variety of ways to integrate more of the humanness of us as we learn. The use of
58 a spiral curriculum (Bruner, 1960) offers a fluid way to integrate the holistic use of learning
59 domains across the experience. Explicit ways to develop one's voice, using think-aloud (van
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3 Someren et al., 1994) techniques have been found useful. The addition of various student
4 formations; such as groups, such a pairs, small groups, facilitates ways to develop a group
5 identity and indeed collective agency. The concept of belonging nestles within efficacy and as
6 such, the integration of experiences to develop both 'I' and Me' and then 'We', is practicably
7 feasible across such processes. Notions of agency and identity are shown are valued
8 components crossing multiple domains of 'human social life' (Shteynberg et al., 2021). In
9 alignment with a self-regulatory perspective, this ought to include explicit means to do so
10 (Boekarts et al., 2000). This supports explicit use of JEDI principles (and/or any other means
11 found contextually useful) so that everyone has accessible means to build social identity in
12 the group of focus (Tajfel, 1978). Agency transcends ideas around group membership
13 (Shteynberg et al., 2022). Preservice primary educators rated their physical education (PE)
14 teaching efficacy higher when they were permitted university based time to transfer how they
15 taught in class, out through a variety of differing environments (Murray et al., 2018). Gray and
16 colleagues encourage future work to consider social and cultural factors as mediators around
17 motivation in PE (2018).
18
19

20
21 Image 1 depicts a group of learners within a large indoor learning space. They are working
22 together to experience the challenge. Learners are more motivated to share knowledge
23 through collective opportunities (Yilmaz et al., 2019). In the shared scenario, learners
24 (preservice primary educators) explore self and general space through a variety of movement
25 concepts. The environment has been modified with the addition of a group play parachute to
26 facilitate tangible experiences of movement concepts, such as that of 'under', 'over', 'in', 'out',
27 'around', 'high', 'medium', 'low' levels, 'slow', 'fast', 'strong' 'light', 'alone in a mass', 'pairs' and
28 so on. In acknowledging both identity and agency, the shared co-construction of an
29 engagement affirmation serves as an entry toward both ends. E.g. "I can participate in, and
30 then create collaborative movement challenge activities by communicating and moving using
31 the affordance of a group play parachute".
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43 Image 1. Student teachers within a large indoor space build content knowledge around skill
44 themes (nonmanipulative, manipulative, and locomotor) pedagogically planned to deepen the
45 learning through movement concepts self and across general space.
46

47 JEDI principled action can be expressed in many ways.

48
49 Justice: I have the right to be all I can be with the body I have and the space I take up. I am
50 me!
51

52
53 Equity: Across context and time, I have the right to inhabit my space and enjoy and thrive
54 within it and that around me. Opportunities for participation ought to be fair, ought to be
55 transparent, and identify inequality and address this. I have the right to equitable access to
56 enjoy being me!
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3 Diversity: I have the right to feel and be wholeheartedly recognised, represented, and
4 celebrated for who and how I am. I have the right to be heard, seen, and counted, the way
5 everyone else is (often the majority).
6

7
8 Inclusion: I have the right to experience all learning and teaching experiences, and all
9 situations beyond these, in ways that acknowledge and support my needs, as well as facilitate
10 my potential.

11 *The power and potential of spaces- those we inhabit and visit*

12
13 Space is a process-oriented concept. Laban (1966) developed a framework of movement
14 analysis, whereby movement conceptually extends the physicality of movements through
15 psycho-physical notions (Groff, 1995). The space we inhabit will range from free to bound
16 parameters. Within this space, movers 'gather' to use the least space as possible and 'scatter'
17 to extend their kinesphere (Laban, 1966); where space is experienced (Newlove and Dalby,
18 2003). The same might be considered for planning. Lesson plans may range from bound (i.e.
19 controlled via time, resources, policies and so on), to freer recreational opportunities across
20 lunchtime, and or near home (i.e. fewer set parameters).
21
22

23 In terms of progression, these easily integrate into fundamental movement skills, and
24 progress through advanced movement skills (Graham et al., 2020). They effectively progress
25 across a variety of predictable; closed, to more open and unpredictable environments (Murray
26 et al., In Press). A reciprocal relationship between self and space is positioned in this article
27 as a dynamic tool to widen and enhance current physical activity prevention and broaden this
28 through community wide affordances. We adopt space as a notion. We recognise and
29 advocate for it as a right. We acknowledge the benefits for its use as a concept and therefore
30 a pedagogical tool. We operationalise it as driver toward leadership for policy enactment, and
31 inspirationally, the creation of means to sustain these across the length and breadth of the
32 country, regardless of topology and post code. Ecological studies show that deprived areas
33 have less affordance to green space than more affluent areas (Schüle et al., 2019). Therefore,
34 space is considered from a 'potestas' viewpoint of considering who has the power, authority
35 and control of wider space, as well as the 'potentia' viewpoint of the actual force, capacity or
36 impact that the space can have as mediated by one's capacity and awareness. Self and
37 general space in terms offer affordances to maximise constraints. The entanglement of moving
38 (as in living and physically moving) through environmental affordances, bridge and exemplify
39 Sen's dual assertion of the reciprocity between health and social equity (2002). Each is reliant
40 upon the other hence the value in holistic and multi-faceted approaches.
41
42
43

44 Location of residence across the UK is acknowledged to factor in how healthy lifestyles
45 support positive life expectancy or alternatively (ONS, 2021). Advocating for space and the
46 affordance and constraints of space, is key in implementing an intersection informed approach
47 (Crenshaw, 1991) as to seek equitable access to accessible spaces that support and enhance
48 wellbeing. The wherewithal to appreciate the reasons for and means by which to become
49 motor agentic (self-managing to best use our proficiencies), and to become and stay physically
50 active, is paramount for all (Murray and Napper-Owen, 2021). The universal theory of physical
51 activity, however, invites us to remain mindful of all wonderful strands to physical activity,
52 alongside the health benefits that often pervade outcomes (Matias and Pigginn, 2022).
53 Scaffolding learning in culturally and developmentally appropriate ways is incredibly engaging
54 for all stakeholders. Such agency is centred through critical thinking dispositions to build
55 awareness around self-esteem (Deci and Ryan, 1995). We depict a landscape of health and
56 wellbeing through three educational exemplifications. These progress notions of self, self with
57 peers, expressed in and across explicit curricular opportunities to potential unplanned ones
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3 in, around and beyond the curriculum. Culturally embodied notions around one's body- worth
4 can be developed across health and wellbeing building experiences, inclusive of physical
5 education. Indeed, cultural competency (Hansen, 2015) and we suggest, capital, can be
6 developed further through justice-oriented pedagogies to reflect the needs and aspirations of
7 all learners. In responding to the call by Khosla and Venkatapuram to 'pause and reflect'
8 (2023; e012155) on the fairness of global health, a justice-orientated approach optimises
9 opportunities to make physical activity an equitable part of this.

10
11
12 The implementation of justice-oriented practice matters for both learner and educator.
13 Hernandez and Boitano recommend a systemic leadership approach to ring fence opportunity
14 for wellbeing (2019). Practice implications include supporting teachers, empowering them, and
15 building positive relationships to offset burn out as well as improve job satisfaction and general
16 wellbeing (Karakus et al., 2024). An 'ecology of leaders' committed to the creation of a
17 'relational space' built on hopeful trust and reflective learning across organizational boundaries
18 is needed (Bradbury-Huang et al, 2010; 109). The relational and ethical components of leading
19 serve as catalysts for positive change (McMahon, 2007).

20 21 *JEDI principled practice*

22
23 Within our JEDI discourse, we respond to Miller's call for bravery as we converse about race
24 (2020a) and acknowledge the profundity of reference to issues of race as a 'silenced dialogue'
25 (Azzarito and Solon, 2005). Across national curricula, a shared responsibility connects readily
26 to the purpose of sustainable goals to reduce inequality toward wellbeing (United Nations,
27 2015). Robust dedication to addressing issues through leadership's prevailing influence
28 across PE (Fitzpatrick and Santamaria, 2015). Water based activities (blue space)- such as
29 swimming is not always nor equitably accessible. It improves health, lowering stress, and can
30 contribute to improved long-term health benefits. Aquatic activity aids in strength and balance
31 development, developing social, physical and cognitive skills (Swim England, 2017). While
32 school provision is free and systemically implemented, many children exit the educational
33 stage without meeting national guidelines or being able then to participate in out-of-school
34 swimming pool opportunities. Furthermore, they may be at more risk when playing in green
35 spaces near blue ones. Children of black or Black British ethnicity are 3.5 times more at risk
36 of drowning than their white counterparts (NCMD, 2023). Physical education is conceptualised
37 differently across UK home nations, however, the importance around and commitment to
38 water competence remains unified (DfE, 2014, CfE, 2004). A JEDI approach could assist
39 systems and polices in this regard.

40 41 42 **Spaces- potestas and potentia, through and beyond curriculum**

43
44
45 Parks and natural areas are increasingly recognised as valuable learning spaces, supporting
46 cognitive development, social interaction, and wellbeing. Research by Potter et al. (2023)
47 highlights that green and blue spaces encourage enjoyable and healthy physical activity. In
48 urban environments, these spaces offer children informal opportunities to learn through
49 exploration and play. The availability and quality of greenspaces vary significantly by
50 socioeconomic status, impacting access to outdoor learning environments. Sun et al. (2022)
51 found that wealthier neighbourhoods tend to have more parks and better-maintained
52 greenspaces, while low-income areas often lack such amenities. These disparities affect not
53 only physical wellbeing but also children's ability to engage in nature-based learning
54 environments. In Glasgow, for example, research demonstrates that deprived areas have
55 significantly lower-quality greenspaces, limiting the social and health benefits available to
56 residents (National Improvement Framework, 2020).

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2
3 Self- space is a movement concept that offers the chance to explore being still and moving
4 within a smaller space within a wider surrounding (Graham et al., 2020). Through a health
5 perspective, it is a comfortable social distance from which individuals can choose to remain
6 within and from others (Vine, 1982). Through a fundamental movement perspective, it is vital
7 that children are provided varied and exciting opportunities to navigate wider spaces. First and
8 foremost, every child needs to be comfortable with their personal identity (Adams and Murray,
9 2022). To become and stay so, the significant others; the family and community members,
10 inclusive of educators will wish to reflect and represent each child across 'their' lived
11 curriculum. A living curriculum rests upon learning which necessitate dialogue about "enquiry,
12 knowledge, practice, learning and teaching approaches which focus on engagement between
13 and among learners, teachers, practitioners, communities, scholars, and with self and texts
14 experiences" (Marshall, 2011; 1). Using JEDI principles, the geography of space alongside a
15 community informed approach to and through the curriculum will offer means to ensure the
16 lived aspects are culturally representative and meaningfully implemented.
17
18

19
20 Metaphysically, the concept of power is intuitively enticing as a critical thinking tool by which
21 the mind makes sense of what we can think of, how we attribute ideas, and to whom and how
22 we situate these amidst the complex modes (Marshall, 2013). To exercise agentic power
23 (Campbell et al., 2009), in this instance, learners need equitable space and opportunity to
24 build personal agency through their own physical and metaphysical selves as they extend to
25 connect with other opportunities and possibilities. Space awareness, alongside effort and
26 relationships of movement, is developed by children as they think about spatial considerations
27 through movement (Graham et al., 2020).
28

29
30 Looking to wider spaces, the Greenspace Toolkit from Natural Resources Wales (2022)
31 contends equitable access involves both physical proximities, ensuring greenspaces are
32 within 300 meters of homes, and active community involvement. Promoting local ownership
33 and participation in greenspace design ensures that these areas meet the needs of diverse
34 populations, transforming them into inclusive learning environments. Greenspaces also play
35 a critical role in urban resilience, particularly in the context of climate change. As cities face
36 rising temperatures and extreme weather, blue-green infrastructure, like wetlands and rain
37 gardens, serves both ecological and educational functions. Initiatives such as the Central
38 Scotland Green Network (CSGN) restore ecosystems and provide accessible greenspaces
39 for communities, enhancing opportunities for outdoor learning and social cohesion (National
40 Improvement Framework, 2020).
41

42
43 Progressive education emphasises the connection between space and teaching practices
44 (Mulcahy et al., 2015). These colleagues attest that pedagogy and learning spaces are
45 interlinked in a dynamic relationship that evolves through interaction. Open-plan classrooms
46 or outdoor areas are often used to promote collaborative teaching and active learning.
47 However, space alone cannot drive change. Teachers and students are encouraged to
48 actively engage with new environments for meaningful transformation to occur. Government-
49 funded childcare programs in Scotland further promote outdoor activities by encouraging
50 nurseries to integrate greenspaces into early education (Scottish Government, 2017). These
51 efforts illustrate the value of natural environments to serve as inclusive spaces that cater to
52 children from diverse backgrounds, fostering both education and environmental awareness.
53 Table 1 exemplifies ways for schools to effectively embrace a justice-oriented approach to
54 getting out and enjoying the environment as children learn.
55
56

57 Table 1 Environmental opportunities to move the kinesphere around our body out through
58 other spaces.
59

Space	Examples
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Indoor classroom	e.g. small spaces at front/back of classroom.
Indoor larger space	e.g. school cafeteria, multipurpose space, large classroom, gym.
Outdoor grey space	e.g. tarmac playground, risk assessed space between buildings.
Outdoor green space	e.g. in/around school, risk assessed local green space, local park.
Outdoor blue space	e.g. in, around a play pool-tub on school premises, by a pond, the seaside, river, water park etc.
Specialised spaces/terrains	e.g. school/local pool, bike track, ice rink, dry ski slope, running track, local gym, parkour/agility venue and so on.

N.B. Risk assessment with health and safety practice underpins all movement -environmental planning and implementation.

This useful environmental framing of planning makes good use of existing spaces across physical activity, from physical education to wider learning opportunities (typifying educational-community settings).

Affordances and Constraints as means to create accessible physically active learning

Affordances and constraints theories provide a valuable framework for promoting equality in physical activity, particularly in educational settings. Developed by Gibson (1977), the theory describes how environments offer affordances, which are opportunities for actions that create accessibility based on individual needs, abilities, and perceptions, while constraints limit these possibilities. Affordances are things across the environment that can aid development (Gibson, 1977) and can effectively support physical activity and wellbeing (Sando and Sandseter, 2020). By carefully designing and adjusting environments to maximise affordances more commonly called opportunities and reduce constraints, schools can create inclusive spaces that promote equitable access to physically active learning and wellbeing for all students (Pardali et al., 2024). In early childhood and school settings, physical affordances play a central role in fostering equality. Physical affordances can be features such as pathways, open fields, natural elements, and adaptable playground equipment these all can enable diverse types of play, catering to varied interests and abilities.

Newell's (1986) triangulation approach to constraints offers the educator and learner explicit means to use constraints to better contextualize the plan around the pupil, effectively using the learning environment to implement an equitable means to experience the learning (1986).

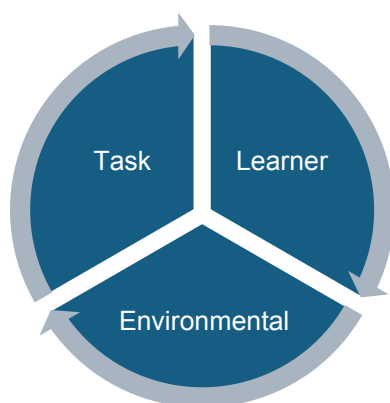


Figure 1. Constraints inform stakeholders in what is both manageable and meaningful for each known and emergent context.

Equitable ways to embody constraints and optimise affordances remains the underpinning for all education. The terminology here speaks to ways the body can translate movement across the given environment. Constraints-led pedagogies sit upon the theoretical premise that in

1
2
3 knowing of learner and environmental constraints, the educator can then effectively plan the
4 learning and teaching sequence (Newell, 1986). By connecting with principles of JEDI to help
5 open access to opportunities for transformative experiences and learning. PAL is such a
6 delightful means to embody learning. It is noted for effectively increasing physical activity
7 across the school day (Bacon and Lord, 2021). Certainly, physical activity is associated with
8 wellbeing (Biddle et al., 2019, Howells and Bowen, 2016). Equally academic achievement is
9 touted with improvements in executive thinking and metacognition (Alvarez-Bueno et al.,
10 2017; Murray and Napper-Owen, 2021). Critical thinking (Facione et al., 2000) is therefore a
11 useful bridge for children to develop their 'being' and becoming' in equitable and enjoyable
12 ways. UNESCO's quality PE guidelines explicate the need for inclusive curricula (2015). They
13 illuminate gender, disability, and minority groups, as part of these considerations. More
14 broadly speaking, inclusion encompasses concepts of awareness, respect, and understanding
15 (Thompson, 2017).
16
17

18
19 Affordances are enablers. They permit the facilitation of opportunity (Gibson, 1979). Social
20 affordances which are opportunities for interaction within a setting, are essential for fostering
21 inclusion and equality, particularly in educational contexts. Social environments shape how
22 children experience the outdoors and interact with each other, which can influence their
23 engagement and wellbeing. Within the Norwegian and Estonian school context, some
24 students reported enjoying activities like "walk and talk" during recess. This fostered social
25 bonds and inclusion, particularly for adolescents seeking peer interaction (Clark and Uzzell,
26 2006). Teachers who actively promoted PAL positively influenced students' attitudes and
27 enjoyment, making the activities feel inclusive and engaging. Teachers' involvement also
28 reduced social constraints, as their support helped bridge potential gaps between students
29 with varying levels of experience or interest. This has also been seen in the UK during the
30 daily mile, where time spent in 'walk and talk' mode helps the class's overall teamwork and
31 social interactions (Howells et al. 2019).
32
33

34 Opportunities for children to explore through planned and emergent movement is important
35 yet not equitable (Rogers et al., 2024). Activity opportunities across wider spaces improve
36 wellbeing outcomes (Fairclough et al., 2023). Undoubtedly, educators play a key facilitator
37 role in these processes (Reeve and Shin, 2020).
38

39 *JEDI principled pedagogies*

40
41 In our work, we wholeheartedly embrace the concepts of justice, equity, diversity and inclusion
42 (JEDI) as part of our working ethos and indeed, pedagogical approaches. We use the JEDI
43 principles as a mechanism to position and acknowledge the value of *'me, myself and 'I,* within
44 and around self-space. This notion extends from self across wider spaces as we re-tool what
45 potential opportunities are around us, as means to enjoy and exert our agentic wellbeing as
46 we gain awareness in the joys of participating with *others.*
47

48 Jedi Public Health is a school focused approach from elementary across secondary school
49 phases. It favours notions whereby health equity is sought by adapting features found across
50 daily living (Geronimus et al., 2016). For school practice, this approach embodies the notion
51 of framing the capacity to attain a challenge as learnable and expandable instead of as a fixed
52 capacity.
53

54 Case study-teacher education opportunities beyond 'traditional' learning spaces

55
56 For example, in seeking equitable ways to encourage male and female student teachers
57 varied in aquatic skill competence and confidence, we had students co-construct the access
58 and use of the water-based learning and teaching environment to suit both their needs and
59 aspirations as informed by educational policies around child water competence (DfE, 2013).
60

This resulted in a variety of pedagogical decisions which remained student-informed and centred, using self-identified contextual constraints (e.g. water/changing environments) as culturally informed and empowered.

Students entered the water at different times (5 minutes apart). Women wishing to enter before their male counterparts did so. At the end this system worked in reverse. Men and women were allowed to participate separately or alone. The full cohort elected to participate as a mixed group. By using an audit puzzle of constraints (Adams and Murray, 2022), to inform all of what was needed for equitable respectful provision and participation, were able to maximise this professional development opportunity.

1. Students could take one of three roles; participant in the water, dry side assistant, water-based assistant.
2. Game forms remained throwing and catching (fundamental movement skill; FMS based). That eradicated the need for aquatic and or advanced motor skills.
3. The environment was organised so that the floor of the pool remained accessible to students.

Beginning with the premise that participation in the movement is inequitable, affords us space to consider known narratives and hopefully to use these to better inform a justice, equity, diversity, and inclusion principled practice. But what does that mean for practice? Certainly, intersecting factors have been identified for increasing opportunities. Protected characteristics offer an entry point to identify and illuminate the intersections of inequality of health and wellbeing and ways to improve these (PHE, 2021).

Crenshaw's work signposts ways for educators to both illuminate and utilise the existing inequalities toward the advancement of an equitable solution (1989). In this case the focus is on around best opportunity to enjoy moving through the environment. The Global Matrix 4.0 Scotland ranks children in Scotland as among the most sedentary worldwide. Inequality worsens with the finding that children more deprived are more sedentary than their less deprived counterparts (Bardid et al., 2021). Across England, children identifying as White British are most likely to participate in physical activity, more so than children identifying as black, other, or Asian (Gov.uk, 2024). We hope to build upon the gained momentum of these illuminated knowns.

Part of this issue relates to motor competence, and the extent to which children have had consistent quality opportunities to develop and then implement their motor competence into a practice when in curricular time, across wider school experience, and after school into community provision. Motor skills develop along a continuum (Gabbard, 2021). Motor skills can develop typically and or atypically. Stodden et al. (2008) model means by which children will engage to disengage in physical activity. Through a JEDI lens, the four factors of physical activity, motor skill competence, perceived motor competence, and physical fitness could be complicated and compromised without the removal of (potential) barriers towards these outcomes.

A justice orientation seeks to ensure that all children, diverse in psychological, physical, and social differences are seen and heard, and celebrated for who they are, across their daily lives. Healthwise, human lifespan is influenced and impacted by three main factors; sedentary behaviours, patterns of sleep, and physical activity (Groves et al., 2024). These are mediated in part by movement competence. Public Health England acknowledges physical activity inequality (2021). Physical activity remains a protective factor for physical and mental health (Pfeffer and Rhodes, 2023). The role of motor competence remains paramount (Hill et al., 2023). Once children acquire the basics of agility, balance, and coordination experiencing

1
2
3 movement through self and wider spaces, they can transfer this awareness and competence
4 onto other manipulatives and more varied terrains endeavour (Murray and Howells, 2023). In
5 and around PE and physical activity, notions of social justice have long since been explicated
6 (Fernandez-Balboa, 2017; Kirk and Tinning, 1990) and more recently, applied (Lynch, et al,
7 2020). Belonging is a crucial requisite for wellbeing (El Zaatari and Maalouf, 2022). Building
8 upon the wealth of informed practice, we bring explicit attention to deploying JEDI principled
9 practice to build agentic understanding of constraints and the capacity to mediate our
10 embodied approach.
11

12 13 **Example 1: Building confidence and competences to move through self and wider** 14 **spaces**

15
16 Biological maturation, power, and overall muscle strength are interrelated in adolescents
17 (Yapici et al., 2022). In essence, this growth period is a crucial time to build strength. As such,
18 opportunities across primary and secondary educational phases offer useful spaces and
19 places to extend the movement patterns commenced through early years integrating
20 resistance tasks across learning as to build muscle mass across adolescence. Whilst a call
21 has been made to gather greater evidence in regards exercise type, duration, and activity
22 intensity (PHE, 2020), colleagues are contributing to this knowledge research base. Engaging
23 and re-engaging children requires curricular opportunities to be socially and culturally relevant
24 (Hall, Treacy and Gray, 2017).
25

26
27 Any lesson plan 'set' needs to remain open enough such that it remains developmentally
28 appropriate- accessible for the learners regardless of school stage or learner age. Building
29 physical literacy gets our children comfy and able and excited to get out and about.
30

31 Start with the body; their body; your body! Consult with children to draw from their prior
32 experiences, what they enjoy, and what they might like to try. The use of a child's own
33 bodyweight is a valuable practice known to positively impact many health indices; physical
34 and mental (Faigenbaum, 2000; Murray, Murray and Howells, 2023, Stricker, 2002).
35

36 Health and wellbeing Experience and Outcome (Curriculum for Excellence: health and
37 wellbeing current iteration). Placed within a lesson plan bounded approach, a body
38 resistance-based lesson might feature in the following way. A progression spiral (Bruner,
39 1960) is used to facilitate the lesson.
40

41 At a novice level-Early years: e.g. I am learning to move my body well, exploring how to manage
42 and control it, and finding out how to use and share space. **(HWB 0-21a)**
43

44 Moving through primary: e.g. I am discovering ways that I can link actions and skills to create
45 movement patterns and sequences. This has motivated me to practise and improve my skills to
46 develop control and flow. **(HWB 1-21a)**
47

48 Through secondary: As I encounter a variety of challenges and contexts for learning, I am
49 encouraged and supported to demonstrate my ability to select and apply a wide range of complex
50 movement skills and strategies, creatively, accurately, and with consistency and control. **(HWB 4-21a)**
51

52 Exemplified through a lesson might feature in the following way as positioned with other
53 learning intentions, such as group work cooperation, problem-solving, and taking on differing
54 roles to collaborate, support, follow, and lead peers toward the agreed task.
55

56 Lesson plan

57 Learning objectives:

58 To be able to enter, hold, and exit a sequence of body resistance moves with control.
59
60

To be able to show and describe to a peer a movement sequence that involves lower, core, and upper body strength moves.

To be able to work with a peer and or small group of peers and come up with movement solutions to movement based problems that aim to develop body strength.

"I can try out a variety of strength building moves and with peers, develop a sequence that develops upper, core and lower body strength".

Organisation: Flat open space.

Equipment: Body is recognised and valued as a strength building piece of equipment, anatomical human body posters (optional).

Prior learning/elicitation: Basic movement agility explored through gathering and scattering body moves, when in self space, and traveling. Comfortable and competent in moving body into differing levels of low (own body along floor level), medium (own body at waist level) and high (body at full length using usual mode for mobility) set tasks.

Lead in activity: Find a space across the floor. Create a base of support for your starting point. This is your 'home' base- start and begin here. Make a star shape to create a space for your own kinesphere (self space). Find a show a peer 3-5 different ways to hold your body position for 3-5 counts when facing down, facing upwards, and facing each side. Hold the position and think about what happens to your body as you attempt to hold and show the position with control. What do you need to do to be stable? Where do you feel muscles working? Where are you building stronger muscles?

Progression. From your home base, vary the way you enter and exit the skill. Try and show a basic position e.g. plank- in different ways e.g. face down, face up, to side. What other muscles are being engaged? Check the poster. Try it out, share with a partner to check.

Progression. Challenge yourself by changing the contacts on the floor. Think about contacts on the floor e.g. two feet/wheels count as two, one hand/arm counts as one e.g. from 2 to 3 - standing star shape on toes to side position star with two feet and one hand contact. What happens to the muscles where the base of support is shifted? What happens to your balance? Start from home base and create a set of challenges that show changes in the contacts in your base of support.

Progression. Vary the level of the positioning. From standing down to a horizontal floor level movement entry point e.g. A lunge from standing into a face down star shape, into floor based 4 contact (hand-hand-foot-foot) scooting along the floor.

Progression. With a partner/small group, choose 4-5 of your movements and create a routine. Aim to hold each move so that your muscles engaged are working and building strength (3-5 counts per move).

Progression: Show another group. Try theirs. Return to your group and think about ways to show and help another group learn your movement challenge set. What can you say? What might you model? How will you keep everyone included and feeling comfortable? Compliment the other group on their efforts and share with them your favourite movement from their challenge.

Plenary. Why is having strong bones and muscles so important for our general health e.g. our mood, our brain health, our balance, our range of motion? Choose one benefit you find helpful for your own health. How might these moves be incorporated into your activities when away from school? Find another pair/group and take one of the large posters. Using the posters,

show them where you felt your strength building today. Identify the muscle group names. Share any challenges you experienced and solutions you found to these. (Link forwards to next opportunity).

Applying affordances and constraints theory to educational physically active environments emphasise the importance of inclusivity, flexibility, and social engagement in promoting equality. The following example focuses on how dance is important for inclusivity in bringing the world to the class through the celebration of differing ways to move through rhythm with one another.

Example 2: Progressing agility, balance and coordination through rhythmical movement with music.

Learning about and celebrating different cultures through rhythmical movement

In the OECD review (2021) of Scotland's Curriculum for Excellence, one of the recommendations was to create a better balance between depth and breadth of learning across the curriculum. Adopting an interdisciplinary (IDL) approach allows learners to make meaningful links between the curriculum and their experiences. It also allows a space for learners of all backgrounds and all abilities to showcase their learning in ways that suit their needs and identities (Education Scotland, 2022).

The Department for Education in England recommends that schools include dance in their PE curriculum to match the breadth and ambition of the national curriculum (2023). Dance can help students develop a variety of skills, including:

- **Coordination:** Dance can help students develop their coordination, flexibility, and strength.
- **Spatial awareness:** Dance can help students develop their spatial awareness.
- **Social interaction:** Dance can encourage social interaction and provide a positive outlet for emotions.
- **Group work:** Dance can help students learn to work together in groups.

The Welsh curriculum further reinforces the need to consider movement frameworks, choreographic elements, and performance aspects (Gov.Wales 2020). Dance is explored through expression, enacting movement concepts for children to experience and a rich series of opportunities in Ireland (Department of Education, 2024).

Here follows an example of teaching fictional storytelling through the medium of dance, which also showcases cultural heritage and identity.

From the Curriculum for Excellence, dance, drama and writing can be linked:

Dance: I can explore and choose movements to create and present dance, developing my skills and techniques. (EXA 2-08a, Curriculum for Excellence, add DATE)

Drama: I have created and presented scripted or improvised drama, beginning to take account of audience and atmosphere. (EXA 2-14a, Curriculum for Excellence, add DATE)

Writing: I can convey information, describe events, explain processes or combine ideas in different ways. (LIT 2-28a, Curriculum for Excellence, add DATE)

Key Teaching Point: Highlight that Bollywood dance reflects Indian culture, festivals, and storytelling through movement.

Learning Intention: We are learning to tell a story through dance.

Success Criteria:

- I can identify the significance of Bollywood dance to cultures in South Asia
- I can explain how Bollywood dances are used to tell a story
- I can create my own fictional story through Bollywood dancing

PAL focus through movement concepts:

Non-manipulative/Turning, twisting, balancing, transferring weight

With people: Leading/following, groups

Effort: Fast, slow

Direction: Forward/backward, right/left

Warm up through educational active elicitation

Rhythmic warm up - Play instrumental Bollywood tunes and ask learners to move around the space, highlighting the key areas we are focusing on from the PAL movement wheel.

Highlight that Bollywood dancing originates in India and is a common form of dance for many from South Asian communities.

Emphasise how Bollywood dance blends traditional Indian dance styles (e.g., classical dance like Bharatanatyam) with modern influences (e.g., hip-hop, jazz).

Activity 1:

Work as individuals to mirror and learn some basic Bollywood moves:

Step 1: "Thumka" (hip movement) – a signature hip twist.

Step 2: "Balle Balle" (Punjabi step) – arms up, bouncing side to side.

Step 3: "Namaste" (hands together) – bowing slightly with hands in prayer position.

Step 4: Arm twirls with finger snaps (adding flair and style).

Step 5: Moving in a circular formation with small jumps or skips (to promote teamwork).

Activity 2:

Work with a partner to practise the above moves together in ways that work for respective constraints and preferences.

Activity 3:

Work in groups of 4 to 6 to create a dance using the above move to tell a short story.

Activity 4:

Showcase your stories and dances with other groups.

Peer Assess each other's work commenting on how PAL movement concepts were incorporated into the dance.

Closing point:

To understand that storytelling, expression, dance and emotion are common to all cultures and there are many ways in which we can value global traditions and heritage.

Figure 2. Lesson plan depicting a dance movement sequence.

When children have had plenty of varied ways to develop, refine and transfer their acquiring movement related acumen, it is possible to increase more meaningful activity for other worthy reasons and outcomes. The medium of visual arts is depicted in our final example.

Example 3: Progressing concepts of space to wider practices across the curriculum.

Physically Active Learning (PAL) through Visual Arts-using space implicitly toward learning outcomes

- PAL in order to Get it right for every child; GIRFEC (example of Education Scotland, 2024)
 - From within the classroom (e.g. connecting with the visual image, perceptions, I see I think I feel, illustrate through a musical count: clap/stamp/stomp)
 - Other bigger indoor spaces e.g. gym areas (e.g. express movement without equipment making use of space/utilising resources as you progress)
 - Outside the school building (e.g. extending learning from observing the environment and chalk your own painting)

Outdoor learning experience



Figure 3. Painted picture of a landscape as inspired by outdoor exploration

Have a go. Choose (create) an image of value to you

- Engage in I see, I think, I feel sharing with colleagues
- Consideration to whole environment for learning:
 - from within the classroom
 - other areas inside the school
 - outside the school

From the Curriculum for Excellence, Movement skills, competencies and concepts, Music and Literacy can be linked:

1
2
3 Movement skills, competencies and concepts: As I encounter new challenges and contexts
4 for learning, I am encouraged and supported to demonstrate my ability to select, adapt and
5 apply movement skills and strategies, creatively, accurately and with control. HWB 2-21a /
6 HWB 3-21a
7

8 Music: Inspired by a range of stimuli and working on my own and/or with others, I can
9 express and communicate my ideas, thoughts and feelings through musical activities. EXA
10 0-18a / EXA 1-18a / EXA 2-18a
11

12 Literacy- Enjoyment and choice: I enjoy exploring and playing with the patterns and sounds
13 of language and can use what I learn. LIT 0-01a / LIT 0-11a / LIT 0-20a
14

15 Key Teaching Point: Highlight that through the visual arts being used as a stimulus to action
16 democratic pedagogy through movement.
17

18 Learning Intention: We are learning to express ourselves through movement.
19

20 Success Criteria:
21

- 22 • I can identify the significance of the visual arts to demonstrate my ability to select,
23 adapt and apply movement skills.
- 24 • I can express and communicate my ideas, thoughts and feelings about my painting
25 through musical activities.
- 26 • I can create my own patterns and sounds of language through what I see, think and
27 wonder about my painting.
28
29

30 PAL focus through movement concepts:
31

32 Warm up through educational active elicitation
33

34 *Rhythmic warm up* – Connect with the selected painting and think about what song or piece
35 of music it makes you think about. Play instrumental linked music and ask learners to move
36 around the space, highlighting the key areas we are focusing on from the PAL movement
37 wheel.
38

39 Highlight that we are all unique and what we see, hear and wonder when we look at a
40 painting will differ from one person to the next.
41

42 Emphasise how our painting may make us think about different musical genres but no
43 answer is incorrect because it is specific to the individual.
44

45 Activity 1:
46

47 Work as individuals or in small groups:
48

49 Share what song your painting made you think about.
50

51 Is it a fast song or a slow song?
52

53 Can you tap, clap, jump, skip in time to the music?
54

55 Activity 2:
56

57 Work with a partner can you compare each other's song and can you think about the lyrics.
58

59 Clap out the syllables of the lyrics that make up your chosen song in time to the music.
60

Activity 3:

1
2
3 Work in groups of 4 to 6 to create your own picture collaboratively.
4

5 Think about a title for your painting and can you create an accompanying piece of music
6 using materials found around your setting. You can stomp your feet, clap your hands, click
7 your fingers, whistle or use object to tap or drum etc.
8

9 Activity 4:

10 Showcase your titles painting and musical creation with other groups.

11 Peer Assess each other's work commenting on how PAL movement concepts were
12 incorporated into the task.
13
14

15 Closing point:

16 To understand that painting can provide a gateway of expression through looking, thinking,
17 wondering and creating. Acknowledgement that all of our creative expressions should be
18 valued, seen and appreciated.
19

20 Appreciation of the visual arts can be enriched through embodied pedagogy across the senses
21 and incorporate movement. Using the landscape painting exemplar as a provocation learners
22 can go for a walk and speak about what environmental elements they have observed. On their
23 nature walk they can sketch and or photograph materials and then create colour montage
24 using art materials such as pencils, crayons, pastels, paints etc.
25
26

27 The importance of dialogue in eliciting voice and exemplifying how provocations are utilised
28 in practice enable the learner to engage with movement. Recognising the importance of
29 highlighting creativity in the lives and education of children is vital. Creative approaches enable
30 children to think innovatively, complementing an inclusive, play-based method. This
31 perspective aligns with the view that learning is a social process; children need opportunities
32 to think, wonder, converse, negotiate, and collaborate with their peers and adults (Winsler,
33 2003). Nearly all children, regardless of their cultural background, engage in play. When play
34 is discussed, movement is implied. This concept can be explored from either a proximal or
35 evolutionary/functional perspective (Picciuto and Carruthers, 2014). According to Picciuto and
36 Carruthers (2014), children who participate in pretend play are actively developing their future
37 creative selves as they transition to adulthood (ibid). Practitioners play a vital role in this
38 learning approach. One of the initial challenges is that not all practitioners perceive themselves
39 as physically active, leading to a lack of confidence in implementing physically active learning
40 practices. There are numerous crucial components to consider when equipping practitioners
41 with the tools needed for successful PAL implementation. Practitioner autonomy is of
42 paramount importance, as empowering practitioners positively impacts their working
43 environment (Parker, 2015; Wilches, 2007). Practitioners will wish to feel confident in their
44 practice to relinquish ownership, assume the role of learning facilitators, and recognise the
45 importance of interacting without interfering (Fisher, 2016). Holistic opportunities to build
46 embodied practice using PAL through and beyond initial teacher education are encouraged.
47
48
49

50
51 **Conclusion**

52 Given the ongoing concern for inactivity across childhood (Bardid et al., 2022), and the
53 inevitable interplay between policy and practice, bold leadership is required to redress the
54 marginalization of children from activity. This section brings attention to pro-social attentive
55 leadership needed to envision full access to personal and general spaces for wellbeing. As
56 social beings, the notion of space for movement also extends to space for social connection.
57 This paradigm is built on the premise that "survival is linked to the ways we connect with
58 others" (Burkhardt and Nagai-Jacobson, 2002, 265). Frankl (2010) attests to the power of
59
60

being connected for a meaningful life. Recognition of the role space can stipulate also incorporates development of personal values and associated social progression (Uemura, 2018). Educational leaders have an advocacy role in social justice (Bogotch and Shields, 2014), and with this backdrop, that role comes into sharp focus.

The importance of equitable means to access and use learning spaces ought to be recognised through pedagogy for the facilitation of possibilities toward the transformative element of becoming. Urban greenspaces, social equity, and environmental sustainability can be further explored through access and prioritisation across and around our curricula. Sustainable development toward wellbeing for all, across all ages and stages remains a priority (United Nations, 2015). Whilst it is recognised that children are diverse culturally and linguistically (Holmes, 2023) we contend similar transformative opportunities to create equitable spaces translated out to the physical environment, as experienced through the physicality of participation, offer transformative opportunities for educators and wider communities to build a love of self and movement along this journey. Active use of a JEDI framework to support PAL offers one tangible means to bring an authentically representative and celebratory living space to and for every child.

References

- Adams, S. and Murray, A. (2022) Primary physical education and its complex puzzle of diversity. In: Doull, K. (ed) *Teaching a diverse curriculum*. Learning Matters, London.
- Álvarez-Bueno, C., Pesce, C., Cavero-Redondo, I., Sánchez-López, M., Garrido-Miguel, M. and Martínez-Vizcaíno, V. (2017) Academic achievement and physical activity: A meta-analysis. *Pediatrics*, 140(6), e20171498. <https://doi.org/10.1542/peds.2017-1498>.
- Azzarito, L. and Solomon, M.A. (2005) A reconceptualization of physical education: The intersection of gender/race/social class. *Sport, Education and Society*, 10(1), pp.25–47. <https://doi.org/10.1080/135733205200028794>.
- Bacon, P. and Lord, R.N. (2021) The impact of physically active learning during the school day on children's physical activity levels, time on task and learning behaviours and academic outcomes. *Health Education Research*, 36(3), pp.362–373. <https://doi.org/10.1093/her/cyab020>.
- Barboza, M. H.C., Giannotti, M., Grigolon, A.B. and Geurs, K. T. (2024) A comparative analysis of leisure accessibility and equity impacts using location-based and space-time accessibility metrics. *Transportation Research Part A: Policy and Practice*, 190; 104237. <https://doi.org/10.1016/j.tra.2024.104237>.
- Bardid, F., Tomaz, S.A., Johnstone, A., Robertson, J., Craig, L.C.A. and Reilly, J.J. (2022) Results from Scotland's 2021 report card on physical activity and health for children and youth: Grades, secular trends, and socio-economic inequalities. *Journal of Exercise Science & Fitness*, 20(4), pp.317–322. <https://doi.org/10.1016/j.jesf.2022.07.002>.
- Boekaerts, M., Pintrich, P.R. and Zeidner, M. (2000) Chapter 1 - Self-Regulation: An Introductory Overview, Editor(s): Monique Boekaerts, Paul R. Pintrich, Moshe Zeidner, *Handbook of Self-Regulation*, Academic Press, 2000, Pages 1-9, ISBN 9780121098902, <https://doi.org/10.1016/B978-012109890-2/50030-5>.
- Bradbury-Huang, H., Lichtenstein, B., Carroll, J.S. and Senge, P.M. (2010) Relational space and learning experiments: The heart of sustainability collaborations. In: Pasmore, W.A., Shani, A.B. and Woodman, R.W. (eds) *Research in organizational change and development*,

1
2
3 vol. 18. Emerald Group Publishing Limited, Leeds, pp.109–148.

4 [https://doi.org/10.1108/S0897-3016\(2010\)0000018008](https://doi.org/10.1108/S0897-3016(2010)0000018008).

5
6 Braveman, P., Arkin, E., Orleans, T., Proctor, D. and Plough, A. (2017) What is health
7 equity? Robert Wood Johnson Foundation.

8
9 Bogotch, I.E. and Shields, C. (eds) (2014) *International handbook of educational leadership*
10 *and social (in)justice*. Dordrecht: Springer.

11
12 Bull, F.C., Al-Ansari, S.S., Biddle, S., Borodulin, K., Buman, M.P., Cardon, G., Carty, C.,
13 Chaput, J.P., Chastin, S., Chou, R. and Dempsey, P.C. (2020) World Health Organization
14 2020 guidelines on physical activity and sedentary behaviour. *British Journal of Sports*
15 *Medicine*, 54(24), pp.1451–1462.

16
17 Burkhardt, M.A. and Nagai-Jacobson, M.G. (2002) *Spirituality: Living our connectedness*.
18 Albany: Delmar Thomson Learning.

19
20 Campbell, C. (2009) Distinguishing the power of agency from agentic power: A note on
21 Weber and the 'Black Box' of personal agency. *Sociological Theory*, 27(4), pp.407–418.
22 <https://doi.org/10.1111/j.1467-9558.2009.01355.x>.

23
24 Clark, C. and Uzzell, D. (2006) Children's perceptions of play experiences and play
25 preferences: A qualitative study of four Norwegian after-school programs. *Journal of*
26 *Adventure Education and Outdoor Learning*, 6(1), pp.1–17.

27
28 Crenshaw, K. (1991) Mapping the margins: Intersectionality, identity politics and violence
29 against women of color. *Stanford Law Review*, 43(6), pp.1241–1299.
30 <https://doi.org/10.2307/1229039>.

31
32 Crocetti, E., Albarello, F., Meeus, W., and Rubini, M. (2022) Identities: A developmental
33 social-psychological perspective. *European Review of Social Psychology*, 34(1), 161–201.
34 <https://doi.org/10.1080/10463283.2022.2104987>

35
36 Department for Education (2013) National curriculum in England: physical education
37 programmes of study. [https://www.gov.uk/government/publications/national-curriculum-in-](https://www.gov.uk/government/publications/national-curriculum-in-england-physical-education-programmes-of-study/national-curriculum-in-england-physical-education-programmes-of-study)
38 [england-physical-education-programmes-of-study/national-curriculum-in-england-physical-](https://www.gov.uk/government/publications/national-curriculum-in-england-physical-education-programmes-of-study/national-curriculum-in-england-physical-education-programmes-of-study)
39 [education-programmes-of-study](https://www.gov.uk/government/publications/national-curriculum-in-england-physical-education-programmes-of-study/national-curriculum-in-england-physical-education-programmes-of-study)

40
41 Department for Education (2024) Lifelong learning entitlement overview. Available at:
42 [https://www.gov.uk/government/publications/lifelong-learning-entitlement-lle-](https://www.gov.uk/government/publications/lifelong-learning-entitlement-lle-overview/lifelong-learning-entitlement-overview)
43 [overview/lifelong-learning-entitlement-overview](https://www.gov.uk/government/publications/lifelong-learning-entitlement-lle-overview/lifelong-learning-entitlement-overview).

44
45 Department of Education (2024) New primary curriculum. Available at:
46 <https://www.gov.ie/en/policy-information/027ad-primary-curriculum-framework/>.

47
48 Education Scotland (2016) *Vision 2030+: Concluding report of the learning for sustainability*
49 *implementation group*. Available at: [https://education.gov.scot/media/ulodcmfl/res1-vision-](https://education.gov.scot/media/ulodcmfl/res1-vision-2030.pdf)
50 [2030.pdf](https://education.gov.scot/media/ulodcmfl/res1-vision-2030.pdf).

51
52 Education Scotland (2017) Approaches to physical activity in the primary years. Available at:
53 <https://education.gov.scot/resources/approaches-to-physical-activity-in-the-primary-years/>.

54
55 Education Scotland (2023) Curriculum for excellence: health and wellbeing experiences and
56 outcomes. Available at: [https://education.gov.scot/media/5p4dvqvm/health-and-wellbeing-](https://education.gov.scot/media/5p4dvqvm/health-and-wellbeing-eo.pdf)
57 [eo.pdf](https://education.gov.scot/media/5p4dvqvm/health-and-wellbeing-eo.pdf).

58
59 Faigenbaum, A. D. (2000) Strength training for children and adolescents. *Clin Sports Med.*;
60

1
2
3 19(4):593–619.

4
5 Fairclough, S.J., Clifford, L. and Brown, D. (2023) Characteristics of 24-hour movement
6 behaviours and their associations with mental health in children and adolescents. *Journal of*
7 *Adventure and Social Studies in Behavior*, 2(11), p.21. [https://doi.org/10.1186/s44167-023-](https://doi.org/10.1186/s44167-023-00021-9)
8 [00021-9](https://doi.org/10.1186/s44167-023-00021-9).

9
10 Fernández-Balboa, J.M. (2015) Imploding the boundaries of transformative/critical pedagogy
11 and research in physical education and sport pedagogy: Looking inward for (self-)
12 consciousness/knowledge and transformation. *Sport, Education and Society*, 22(4), pp.426–
13 441. <https://doi.org/10.1080/13573322.2015.1050371>.

14
15 Gabbard, C.P. (2021) *Lifelong motor development*. 8th ed. Wolters Kluwer.

16
17 Gibson, J.J. (1977) The theory of affordances. In: Shaw, R. and Bransford, J. (eds)
18 *Perceiving, acting, and knowing: Toward an ecological psychology*. Hillsdale: Erlbaum,
19 pp.67–82.

20
21 Gibson, J.J. (1979) *The theory of affordances: The ecological approach to visual perception*.
22 Boston: Houghton Mifflin Harcourt.

23
24 Gordon, J.A. (2024) Doing wellbeing policy: A discussion on public policy making for
25 integrative prosperity. *Australian Journal of Public Administration*, 83(1), pp.134–139.
26 <https://doi.org/10.1111/1467-8500.12631>.

27
28 Gov.UK (2024) Ethnicity facts and figures. Physical activity. [https://www.ethnicity-facts-](https://www.ethnicity-facts-figures.service.gov.uk/health/diet-and-exercise/physical-activity/latest/)
29 [figures.service.gov.uk/health/diet-and-exercise/physical-activity/latest/](https://www.ethnicity-facts-figures.service.gov.uk/health/diet-and-exercise/physical-activity/latest/)

30
31 Gray, S., Treacy, J., and Hall, E. T. (2017) Re-engaging disengaged pupils in physical
32 education: an appreciative inquiry perspective. *Sport, Education and Society*, 24(3), 241–
33 255. <https://doi.org/10.1080/13573322.2017.1374942>

34
35 Graham, G., Holt/Hale, S., Parker, M., Hall, T. and Patton, K. (2020) *Children moving: A*
36 *reflective approach to teaching physical education*. 10th ed. New York: McGraw-Hill
37 Education.

38
39 Greenspace Toolkit, Natural Resources Wales (2022) *New greenspace toolkit*. Available at:
40 [https://naturalresources.wales/media/c1bp1yvg/new-greenspace-toolkit-eng-final-accessible-](https://naturalresources.wales/media/c1bp1yvg/new-greenspace-toolkit-eng-final-accessible-v4.pdf)
41 [v4.pdf](https://naturalresources.wales/media/c1bp1yvg/new-greenspace-toolkit-eng-final-accessible-v4.pdf).

42
43 Groff, E. (1995) Laban movement analysis: Charting the ineffable domain of human
44 movement. *Journal of Physical Education, Recreation & Dance (JOPERD)*.

45
46 Grogan, D. and Martlew, J. (2014) Exploring creative environments through the child's lens.
47 *Creative Education*, 5, pp.1528–1539.

48
49 Groves, C.I., Huong, C., Porter, C.D. et al. (2024) Associations between 24-h movement
50 behaviors and indicators of mental health and well-being across the lifespan: A systematic
51 review. *Journal of Adventure and Social Studies in Behavior*, 3(9), p.48.
52 <https://doi.org/10.1186/s44167-024-00048-6>.

53
54 Hansen, K. (2014) The Importance of Ethnic Cultural Competency in Physical
55 Education. *Strategies*, 27(3), 12–16. <https://doi.org/10.1080/08924562.2014.900462>

56
57 Hart, C. S. (2019) Education, inequality and social justice: A critical analysis applying the
58 Sen-Bourdieu Analytical Framework. *Policy Futures in Education*, 17(5), 582-
59 598. <https://doi.org/10.1177/1478210318809758>

1
2
3 Howells, K. and Bowen, J. (2016) Physical activity and self-esteem: Jonny's story. *Education*
4 *3-13: International Journal of Primary, Elementary and Early Years Education*, 44(3),
5 pp.265–278. <https://doi.org/10.1080/03004279.2016.1171572>.

7 Holmes, M.A. (2023) Creating equitable spaces for all learners: Transforming classrooms
8 through biography-driven instructional conversations. *Linguistics and Education*, 77,
9 p.101230. <https://doi.org/10.1016/j.linged.2023.101230>.

11 Hwb (2008). Physical education in the national curriculum for Wales.
12 [https://hwb.gov.wales/curriculum-2008/key-stages-2-to-4/physical-education-in-the-national-](https://hwb.gov.wales/curriculum-2008/key-stages-2-to-4/physical-education-in-the-national-curriculum-for-wales/)
13 [curriculum-for-wales/](https://hwb.gov.wales/curriculum-2008/key-stages-2-to-4/physical-education-in-the-national-curriculum-for-wales/)

15 Jaekel, J. (2024) The role of physical activity and fitness for children's wellbeing and
16 academic achievement. *Pediatrics Research*. <https://doi.org/10.1038/s41390-024-03467-y>.

18 Jokela, M. (2022) Why is cognitive ability associated with psychological distress and
19 wellbeing? Exploring psychological, biological and social mechanisms. *Personality and*
20 *Individual Differences*, 192, p.111592. <https://doi.org/10.1016/j.paid.2022.111592>.

22 Karakus, M., Toprak, M. and Chen, J. (2024) Demystifying the impact of educational
23 leadership on teachers' subjective well-being: A bibliometric analysis and literature review.
24 *Educational Management Administration & Leadership*.
25 <https://doi.org/10.1177/17411432241242629>.

27 Khosla, R. and Venkatapuram, S. (2023) What is a justice-oriented approach to global
28 health? *BMJ Global Health*, 8, p.e012155.

30 Laban, R. (1966 [1939]) *Choreutics*. Annotated and edited by L. Ullmann. London:
31 MacDonald and Evans. (Published in U.S.A. as *The Language of Movement; A Guide Book*
32 *to Choreutics*. Boston: Plays.) (Initially written in 1939).

34 Landi, D., Lynch, S. and Walton-Fisette, J. (2020) The A–Z of social justice physical
35 education: Part 2. *Journal of Physical Education, Recreation & Dance*, 91(5), pp.20–27.

37 Liu, R., Menhas, R. and Saqib, Z.A. (2024) Does physical activity influence health behavior,
38 mental health, and psychological resilience under the moderating role of quality of life?
39 *Frontiers in Psychology*, 15, p.1349880. <https://doi.org/10.3389/fpsyg.2024.1349880>.

41 Marshall, E. (2014) Power, conatus and affects. In: *The spiritual automaton: Spinoza's*
42 *science of the mind*. Oxford: Oxford Academic.
43 <https://doi.org/10.1093/acprof:oso/9780199675531.003.0003>.

45 Matias, T.S. and Piggan, J. (2022) The unifying theory of physical activity. *Quest*, 74(2),
46 pp.180–204. <https://doi.org/10.1080/00336297.2021.2024442>.

48 McAuley, E., Elavsky, S. Motl, R.W. . Konopack, J.F., Hu, L, and Marquez, D.X. (2005)
49 Physical Activity, Self-Efficacy, and Self-Esteem: Longitudinal Relationships in Older
50 Adults, *The Journals of Gerontology: Series B*, Volume 60, Issue 5, September 2005, Pages
51 P268–P275, <https://doi.org/10.1093/geronb/60.5.P268>

53 Miller, P. (2020) Anti-racist school leadership: making 'race' count in leadership preparation
54 and development, *Professional Development in*
55 *Education*, <https://doi.org/10.1080/19415257.2020.1787207>

57 Mulcahy, C.M, Mulcahy, D.E. and Mulcahy, D.G. (2014) *Toward a Pedagogy Praxis.*
58 *Progressive Education and Critical Pedagogy*. First edition. Routledge.
59
60

1
2
3 Murray, A., Adams, S., Kaitell, E., Shaughnessy, J., and Murray, P. (2018) Using learning
4 domains to complement primary physical education teacher education in primary school
5 settings. *Physical Education Matters*, 13 (2), pp. 54-57. <https://www.afpe.org.uk/library/>

7 Murray, A.M., Murray, P.F. and Howells, K., Uthmani, N and McMillan, N (In Press)
8 Exploring the Promises of Affordances across Spaces and Places. In Betty A. Block and
9 Kanae Haneishi (Eds). *The Thirdspace Movement Model: Connecting movement and social*
10 *justice*. LK Publishing.

12 Murray, A.M., Murray, P.F. and Howells, K. (2023) Accessible resistance movement
13 experiences for elementary students and educators. In *Bridging Science and Practical*
14 *Appliance in Resistance Training*. Daniel A. Marinho, Pedro Forte, Maria Cirilo-Souse and
15 Henrique P. Neva (eds). Intechopen. ISBN 978-1-83768-551-6.

17 Murray A.M., Napper-Owen G. (2021). Metacognition, the METAPE-3, a New Instructional
18 Model for Physical Education. In: Peters M.A. (eds) *Encyclopedia of Teacher Education*.
19 Springer, Singapore. https://doi.org/10.1007/978-981-13-1179-6_421-1

21 National Child Mortality Database (2023). Deaths of children and young people due to
22 traumatic incidents: Vehicle Collisions, Drownings, Violence and Maltreatment and
23 Unintentional Injuries National Child Mortality Database Programme Thematic Report.
24 <https://www.ncmd.info/wp-content/uploads/2023/07/NCMD-Trauma-Thematic-Report.pdf>

26 Newell, K. (1986) Constraints on the development of coordination. In: Wade, M.G. and
27 Whiting, H.T.A. (eds) *Motor development in children: Aspects of coordination and control*.
28 Amsterdam: Martin Nijhoff, pp.341–361. https://doi.org/10.1007/978-94-009-4460-2_19.

30 Newlove, J. and Dalby, J. (2023) *Laban for All*. Nick Hern Books.

32 Office for National Statistics (2022) Quality of life in the UK: August 2022.
33 [https://www.ons.gov.uk/peoplepopulationandcommunity/wellbeing/bulletins/qualityoflifeinthe](https://www.ons.gov.uk/peoplepopulationandcommunity/wellbeing/bulletins/qualityoflifeintheuk/august2022)
34 [uk/august2022](https://www.ons.gov.uk/peoplepopulationandcommunity/wellbeing/bulletins/qualityoflifeintheuk/august2022)

36 Pardali, E., Koni, I., Säre, E. et al. (2024) Pupils' experiences of affordances in school-based
37 physical activity in Norway and Estonia. *Teaching and Teacher Education*, 124, p.104500.

39 Reeve, J. and Shin, S.H. (2020) How teachers can support students' agentic engagement.
40 *Theory Into Practice*, 59(2), pp.150–161. <https://doi.org/10.1080/00405841.2019.1702451>.

42 Ryan, R. M., and Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic
43 motivation, social development, and well-being. *American Psychologist*, 55, 68–78. doi:
44 10.1037/0003-066X.55.1.68

46 Schüle, S. A., Hiltz, L. K., Dreger, S., and Bolte, G. (2019) Social Inequalities in
47 Environmental Resources of Green and Blue Spaces: A Review of Evidence in the WHO
48 European Region. *International Journal of Environmental Research and Public Health*, 16(7),
49 1216. <https://doi.org/10.3390/ijerph16071216>

51 Scmelkes, S. (2020) Recognizing and overcoming inequity in education. United Nations., UN
52 Chronicle. [https://www.un.org/en/un-chronicle/recognizing-and-overcoming-inequity-](https://www.un.org/en/un-chronicle/recognizing-and-overcoming-inequity-education)
53 [education](https://www.un.org/en/un-chronicle/recognizing-and-overcoming-inequity-education)

55 Scottish Swimming (n.d.) National Primary School Swimming Framework. [https://ocs-](https://ocs-sport.ams3.cdn.digitaloceanspaces.com/scotswim-full/2024/05/SSW_School_SFW_17.05.24B.pdf)
56 [sport.ams3.cdn.digitaloceanspaces.com/scotswim-](https://ocs-sport.ams3.cdn.digitaloceanspaces.com/scotswim-full/2024/05/SSW_School_SFW_17.05.24B.pdf)
57 [full/2024/05/SSW_School_SFW_17.05.24B.pdf](https://ocs-sport.ams3.cdn.digitaloceanspaces.com/scotswim-full/2024/05/SSW_School_SFW_17.05.24B.pdf)

- 1
2
3 Shields B. (2022) Justice, Equity, Diversity, and Inclusion Curriculum Within an Introductory
4 Bioengineering Course. *Biomed Eng Educ.* 2023;3(1):39-49. doi: 10.1007/s43683-022-
5 00086-z. Epub 2022 Oct 12. PMID: 36254144; PMCID: PMC9555698.
- 7 Shteynberg, G., Hirsh, J. B., Garthoff, J., and Bentley, R. A. (2022) Agency and Identity in
8 the Collective Self. *Personality and Social Psychology Review*, 26(1), 35-
9 56. <https://doi.org/10.1177/10888683211065921>
- 11 Stodden, D. F., Goodway, J. D., Langendorfer, S. J., Robertson, M. A., Rudisill, M. E., Garcia,
12 C., & Garcia, L. E. (2008) A Developmental Perspective on the Role of Motor Skill
13 Competence in Physical Activity: An Emergent Relationship. *Quest*, 60(2), 290–306.
14 <https://doi.org/10.1080/00336297.2008.10483582> Stricker, P. R. (2002) Sports training
15 issues for the pediatric athlete. *Pediatr Clin North Am*; 49 (4):793–802.
- 17 Van Someren, M.W., Barnard, Y.F. and Sandberg, J.A.C. (1994).The Think Aloud Method. A
18 practical guide to modelling cognitive processes. Academic Press, London.
- 20 Spratt, J. (2016) Childhood wellbeing: What role for education? *British Educational Research*
21 *Journal*, 42(2), pp.223–239. <https://doi.org/10.1002/berj.3211>.
- 23 Swim England (2017) Swimming for health and wellbeing. Executive summary of the health
24 and wellbeing benefits of swimming report. Commissioned by the Swimming and Health
25 Commission. [https://www.swimming.org/swimengland/health-and-wellbeing-benefits-of-](https://www.swimming.org/swimengland/health-and-wellbeing-benefits-of-swimming/)
26 [swimming/](https://www.swimming.org/swimengland/health-and-wellbeing-benefits-of-swimming/)
- 28 Taub, E. et al. (1993) Technique to improve chronic motor deficit after stroke. *Archives of*
29 *Physical Medicine and Rehabilitation*, 74, pp.347–354. PMID: 8466415.
- 31 Tintore, M. (2019) Introducing a model of transformational prosocial leadership. *Journal of*
32 *Leadership Studies*, 13(3), pp.15–34.
- 34 United Nations. (1989) *Convention on the Rights of the Child*. United Nations. Available at:
35 <https://www.ohchr.org/en/instruments-mechanisms/instruments/convention-rights-child>.
- 37 Virenque, L., Mossio, M. (2024) What is Agency? A View from Autonomy Theory. *Biol*
38 *Theory* 19, 11–15. <https://doi.org/10.1007/s13752-023-00441-5>
- 40 Vygotsky, L.S. ([1934] 1965) *Thought and language*. Edited and translated by Hanfmann, E.
41 and Vakar, G. Cambridge, MA: MIT Press.
- 43 Whitfield G.P., Carlson, S.A., Ussery, E.N, et al. (2015) Racial and ethnic differences in
44 perceived safety barriers to walking, United States National Health Interview Survey - 2015.
45 *Prev Med.* 2018 Sep;114:57-63. doi: 10.1016/j.ypmed.2018.06.003. Epub 2018 Jun 9.
46 PMID: 29894716; PMCID: PMC10886426.
- 48 Whitehead, M. (Ed.). (2010) *Physical Literacy: Throughout the Lifecourse* (1st ed.).
49 Routledge. <https://doi.org/10.4324/9780203881903>
- 51 Winsler, A. (2003) Introduction to special issue: Vygotskian perspectives in early childhood
52 education; Translating ideas into classroom practice. *Early Education & Development*, 14(3),
53 pp.253–270.
- 55 World Health Organization (2024) Physical activity. Key Facts. [Physical activity](https://www.who.int/news-room/fact-sheets/physical-activity).
- 57 World Health Organization (2021) Tripartite and UNEP support OHHLEP's definition of 'One
58 Health'. Available at: <https://www.un.org/sustainabledevelopment/health/>.
- 60

1
2
3 World Health Organization (2020) WHO Guidelines on Physical Activity and Sedentary
4 Behaviour. [WHO guidelines on physical activity and sedentary behaviour](#).

5
6 Yilmaz, K. F.G. (2019) Exploring the role of Facebook adoption and virtual environment
7 loneliness on knowledge sharing behaviors in a Facebook learning community. *Educ Inf*
8 *Technol* 24, 1699–1714. <https://doi.org/10.1007/s10639-018-09854-3>
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For Peer Review

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7 To the Editors & Reviewers,

8 Greetings and thank you.
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10 We are delighted to grow and share our principled practice which we wholeheartedly
11 consider as an advantage for all practitioners. We have been inspired by the conference and
12 this special edition as a means to imbue our shared values and approach this project by
13 enacting these principles. We have made beautiful use of the opportunities presented and
14 remain humbled and inspired. Thank you.
15

16 Respectfully,
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18 Alison, Pamela, Kristy, Nuzhat and Natasha
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3 The embodiment of equitable ways to develop agentic wellbeing through movement
4 maximizing personal and general spaces- re-tooling affordances as drivers of social
5 justice
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9 **Abstract**

10
11 This paper explores physical affordances—features and practices supporting activity—and
12 scrutinizes their accessibility to promote principle-led equity in movement. By examining how
13 being active underpins capabilities essential for living well, a holistic perspective on using ‘self-
14 space’ and surrounding space is presented. In line with the World Health Organization’s (2021)
15 mandate for fairness in physical activity programming, a justice-oriented leadership approach
16 across health and education is emphasized. The application of JEDI principles (justice, equity,
17 diversity, and inclusion) to physical movement highlights constructs of autonomy and agency,
18 enabling individuals to make choices and act to invoke change (Virenque and Mossio,
19 2024). The concept of ‘constraints’ is extended from therapeutic roots (Taub et al., 1993) to
20 adaptive movement facilitation (Newell, 1986). Constraints-informed pedagogies enhance
21 embodied learning, fostering autonomy through interactive movement generation in physical
22 education (Renshaw and Chow, 2018). Being well is understood as a composite of physical,
23 cognitive, and emotional health—is recognized as a complex yet integral construct (Spratt,
24 2016; Ryff, 2014). Physical activity is shown to significantly influence health behaviours,
25 encompassing mental and physical wellbeing (Liu et al., 2024). Aligning with Education
26 Scotland’s curricular policy (2023) this paper adopts the term ‘wellbeing’. It remains critically
27 aware of tensions across educational policy agendas as regards the genuine wellbeing of
28 children (Spratt, 2017). As such it offers means for agency development so that children are
29 enabled to seek sustainable means to enjoy healthy active living.
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33 Keywords: wellbeing, education, justice, space
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35 **Context**

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37 The United Nations positions inequity as the gravest of global educational issues (Scmelkes,
38 2020). Alongside a collective pursuit of justice sustaining approach to education in general
39 (Hart, 2019) is that related to movement. Whitfield states that the absence of access to safe
40 and nearby places to be physically active may add to racial and ethnic disparities (2015). As
41 such, one means to attempt to empower students (young citizens) concerning their
42 embodied sense of self, is through physical activity-encompassing pedagogical practices.
43 These can be adapted to other settings e.g. where children experience learning in other
44 settings (such as home/community schooled).
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47 As a group of educators in higher education, we situate our intersecting practices of
48 leadership and contextualised educational practice. Our work through the JEDI framework
49 is to increase the presence of physically active learning (PAL) into school curriculum practice
50 and diversify the ways that PAL is taught (e.g. through outdoor spaces, different movement
51 groups, knowledge of how the body moves, dance, and other learning opportunities.
52

53 **Introduction**

54
55 Movement plays a crucial role in supporting physical, mental, and social health and wellbeing
56 (Jaekel, 2024). With the goal of universal access to some form of movement, movement is
57 acknowledged as a fundamental need and not a privilege (Matias and Piggin, 2022). What
58 hinders the volition for and propensity to be actively engaged is undoubtedly a multifaceted
59 problem.
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3 The principles of justice, equity, diversity, and inclusion (JEDI) provide explicit and
4 systematic means to sustain good practice. Good practices contain all these features.
5 However, there may be times when practitioners remain unaware of what is unseen, and
6 thereby unknown. This is further compounded with the added element of considering the
7 environment within and around the context of where learning takes place, including prior
8 perceptions and/or experiences held by involved parties.
9

10 This paper proposes a way for educators and learners to make the most of what each brings
11 to the learning experience. The (physical) environment can then be utilised to take full
12 advantage of this potentially transformative interplay across said elements. As we wish for
13 our principled approach to support learning and teaching in both primary and secondary
14 education, we enter this journey through initial teacher education. The stakeholders in this
15 context, therefore, are colleagues involved in supporting this pursuit. Our principled action
16 pedagogical approach deploys PAL incidentally and intentionally to offer a variety of means to
17 build positive self-regard, in parallel with movement competence. Inequality in accessing non-
18 mandatory physical activity pivots around location, space (Barboza et al., 2024), and as we
19 posit, the much needed physical literacy to be able to do so (Whitehead, 2010). Identity is
20 central to human experience (Crocetti et al., 2022). We embrace JEDI principles to inform our
21 planning and implementation practices. Educationally, this fosters a socially relevant
22 approach, whereby learners and educators consider and co-construct equitable means to
23 include all participants, diverse in their ways of thinking, of being; and of becoming, through
24 various inclusive ways to enter, contribute to, and benefit from participation. JEDI curriculum
25 initiatives seek to empower students through the creation of safe places to be seen and heard,
26 as they build understanding, and competencies, through a justice orientation (Shields, 2022).
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30 Health equity ensures that this notion stays as fair as possible. Health equity is both a process
31 and outcome (Braveman et al., 2017). Physical activity aids good health (World Health
32 Organisation, 2020; 2024) with potential to raise child self-esteem (Howells and Bowen, 2016),
33 throughout the lifetime (McAuley, et al., 2005). Physical activity is every child's right (United
34 Nations, 1989). However, this may mean different things for children in different contexts.
35 Healthwise, amongst a myriad of factors that influence and impact quality of life, such as
36 relationships, health, what we do, where we reside, finance, nutritional habits (ONS, 2022),
37 three main factors emerge; sedentary behaviours, patterns of sleep, and physical activity
38 (Groves et al., 2024). Equitable health and wellbeing draw from factors "deeply rooted in
39 personal and societal values, such as social justice, safety, prosperity, civic engagement, and
40 environmental integrity" (Pronk et al., 2021;1). The use of space and how we experience it
41 reflects in part who is doing/not doing what or where. It is only by acknowledging the unfairness
42 of access to space, and affordances that facilitate wellbeing, and opportunities to have
43 developed proficiency to do so, that we can enter our JEDI principled journey to improve our
44 collective practice to take and celebrate ownership of movement for wellbeing purposes. We
45 acknowledge all presiding practices toward this pursuit.
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49 Through a preliminary social cognitive framework the interaction of personal,
50 social/environmental and behavioural factors make up the personal construct of self-efficacy
51 (Bandura, 1977). Pedagogically there are ample opportunities to interweave planned through
52 emergent opportunities to construct efficacy alongside the learning. The embedding of
53 constructive means to build knowledge and resilience across physically active learning is
54 some such example. Research set through a theoretical framework of self-determination
55 theory (Ryan and Deci, 2000), together with metacognition (Brown, 1987) findings with
56 children participating in primary and secondary Physical Education 'taught' through direct
57 teaching and without any explicit means to meaningfully contribute to general pedagogical
58 content knowledge approach for planned lessons, showed reduced motivation to engage with
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3 the content. The desire to use it beyond class time across the school day was also reduced.
4 When this was addressed, by having children co-construct the offering, in and around the
5 curriculum, the mission of class time shifted from a 'getting it done' from an educator
6 perspective, of sorts, to a 'sharing and showing ways' children might enjoy such activities with
7 others when both in and beyond curriculum time. Academic learning and motivation were both
8 shown to significantly improve. The integration of peer leaders across lunch periods (mentored
9 through curriculum time), together with explicit environmental playground affordance
10 provision, ensured equitable opportunity for children to engage at their discretion in how, and
11 of their volition where (Murray et al., 2023). The implementation of JEDI principled action time
12 in the second offering from planning through implementation, ensured fair means to better
13 serve everyone.
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16 There are a variety of ways to integrate more of the humanness of us as we learn. The use of
17 a spiral curriculum (Bruner, 1960) offers a fluid way to integrate the holistic use of learning
18 domains across the experience. Explicit ways to develop one's voice, using think-aloud (van
19 Someren et al., 1994) techniques have been found useful. The addition of various student
20 formations; such as groups, such a pairs, small groups, facilitates ways to develop a group
21 identity and indeed collective agency. The concept of belonging nestles within efficacy and as
22 such, the integration of experiences to develop both 'I' and 'Me' and then 'We', is practicably
23 feasible across such processes. Notions of agency and identity are shown are valued
24 components crossing multiple domains of 'human social life' (Shteynberg et al., 2021). In
25 alignment with a self-regulatory perspective, this ought to include explicit means to do so
26 (Boekarts, et al., 2000). This supports explicit use of JEDI principles (and/or any other means
27 found contextually useful) so that everyone has accessible means to build social identity in
28 the group of focus (Tajfel, 1978). Agency transcends ideas around group membership
29 (Shteynberg et al. 2022). Preservice primary educators rated their physical education (PE)
30 teaching efficacy higher when they were permitted university based time to transfer how they
31 taught in class, out through a variety of differing environments (Murray et al., 2018). Gray and
32 colleagues encourage future work to consider social and cultural factors as mediators around
33 motivation in PE (2018). From a justice perspective, this permits a chance to move beyond
34 any known or perceived groupings, to come together through the shared experience of what
35 is to be learned together, regardless of who comes from where, who is who, or such like.
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40 Image 1 depicts a group of learners within a large indoor learning space. They are working
41 together to experience the challenge. Learners are more motivated to share knowledge
42 through collective opportunities (Yilmaz et al., 2019). In the shared scenario, learners
43 (preservice primary educators) explore self and general space through a variety of movement
44 concepts. The environment has been modified with the addition of a group play parachute to
45 facilitate tangible experiences of movement concepts, such as that of 'under', 'over', 'in', 'out',
46 'around', 'high', 'medium', 'low' levels, 'slow', 'fast', 'strong' 'light', 'alone in a mass', 'pairs' and
47 so on. In acknowledging both identity and agency, the shared co-construction of an
48 engagement affirmation serves as an entry toward both ends. E.g. "I can participate in, and
49 then create collaborative movement challenge activities by communicating and moving using
50 the affordance of a group play parachute".
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Image 1. Student teachers within a large indoor space build content knowledge around skill themes (nonmanipulative, manipulative, and locomotor) pedagogically planned to deepen the learning through movement concepts self and across general space.

Justice: I have the right to be all I can be with the body I have and the space I take up. I am me!

Equity: Across context and time, I have the right to inhabit my space and enjoy and thrive within it and that around me. Opportunities for participation ought to be fair, ought to be transparent, and identify inequality and address this. I have the right to equitable access to enjoy being me!

Diversity: I have the right to feel and be wholeheartedly recognised, represented, and celebrated for who and how I am. I have the right to be heard, seen, and counted, the way everyone else is (often the majority).

Inclusion: I have the right to experience all learning and teaching experiences, and all situations beyond these, in ways that acknowledge and support my needs, as well as facilitate my potential.

The power and potential of spaces- those we inhabit and visit

Space is a process-oriented concept. Laban (1966) developed a framework of movement analysis, whereby movement conceptually extends the physicality of movements through psycho-physical notions (Groff, 1995). The space we inhabit will range from free to bound parameters. Within this space, movers 'gather' to use least space as possible and 'scatter' to extend their kinesphere (Laban, 1966); where space is experienced (Newlove and Dalby, 2003). The same might be considered for planning. Lesson plans may range from bound (i.e. controlled via time, resources, policies and so on), to freer recreational opportunities across lunchtime, and or near home (i.e. fewer set parameters).

In terms of progression, these easily integrate into fundamental movement skills, and progress through advanced movement skills (Graham et al., 2020). They effectively progress across a variety of predictable; closed, to more open and unpredictable environments (Murray et al., In Press). A reciprocal relationship between self and space is positioned in this article as a dynamic tool to widen and enhance current physical activity prevention and broaden this through community wide affordances. We adopt space as a notion. We recognise and advocate for it as a right. We acknowledge the benefits for its use as a concept and therefore a pedagogical tool. We operationalise it as driver toward leadership for policy enactment, and inspirationally, the creation of means to sustain these across the length and breadth of the country, regardless of topology and post code. Ecological studies show that deprived areas have less affordance to green space than more affluent areas (Schüle et al, 2019). Therefore, space is considered from a 'potestas' viewpoint of considering who has the power, authority

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3 and control of wider space, as well as the 'potentia' viewpoint of the actual force, capacity or
4 impact that the space can have as mediated by one's capacity and awareness. Self and
5 general space in terms offer affordances to maximise constraints. The entanglement of moving
6 (as in living and physically moving) through environmental affordances, bridge and exemplify
7 Sen's dual assertion of the reciprocity between health and social equity (2002). Each is reliant
8 upon the other hence the value in holistic and multi-faceted approaches.
9

10 Location of residence across the UK is acknowledged to factor in how healthy lifestyles
11 support positive life expectancy or alternatively (ONS, 2021). Advocating for space and the
12 affordance and constraints of space, is key in implementing an intersection informed approach
13 (Crenshaw, 1991) as to seek equitable access to accessible spaces that support and enhance
14 wellbeing. The wherewithal to appreciate the reasons for and means by which to become
15 motor agentic (self-managing to best use our proficiencies), and to become and stay physically
16 active, is paramount for all (Murray and Napper-Owen, 2021). The universal theory of physical
17 activity, however, invites us to remain mindful of all wonderful strands to physical activity,
18 alongside the health benefits that often pervade outcomes (Matias and Piggini, 2022).
19 Scaffolding learning in culturally and developmentally appropriate ways is incredibly engaging
20 for all stakeholders. Such agency is centred through critical thinking dispositions to build
21 awareness around self-esteem (Deci and Ryan, 1995). We depict a landscape of health and
22 wellbeing through three educational exemplifications. These progress notions of self, self with
23 peers, expressed in and across explicit curricular opportunities to potential unplanned ones
24 in, around and beyond the curriculum.
25
26
27

28
29 1. Application of JEDI principles to the body; (re)-educating oneself through potential of self
30 generated movement at any age-stage; and equitably; developmental phase, to better use
31 what is around and about. *"I can build my own basic agility, balance, and coordination; motor
32 competence, to acquire means for my engagement in enjoyable physical activity"*.
33

34 2. Provision of equitable opportunity to build their fundamental skills - competencies,
35 knowledge, can transfer this across other teaching and learning spaces. Wellbeing and health
36 are incorporated as part of the learning outcome through rhythmical movement embracing
37 cultural elements. Self with others. *"I can transfer the basic agility, balance, and coordination
38 developed into other settings and culturally enriching learning possibilities"*.
39

40 3. Establishment of a curriculum perspective - Curriculum being the planned and lived out
41 ways planned teaching progression takes up for example in primary, secondary, college or
42 HE; ITE, with the participants involved. In this example, an opportunity to draw from one's
43 insights, is invited through an interdisciplinary learning opportunity. Culturally embodied
44 notions around one's body- worth can be developed across health and wellbeing building
45 experiences, inclusive of physical education. Indeed, cultural competency (Hansen, 2015) and
46 we suggest, capital, can be developed further through justice-oriented pedagogies to reflect
47 the needs and aspirations of all learners. As a universal premise, the worth of every person
48 (and their body) is culturally embedded. It is unique, precious, irreplaceable, and the most
49 resourceful tool by which to attain wellbeing. In responding to the call by Khosla and
50 Venkatapuram to 'pause and reflect' (2023; e012155) on the fairness of global health, a
51 justice-orientated approach optimises opportunities to make physical activity an equitable part
52 of this. *"I feel welcome to, and can go outdoors to find a landscape that inspires me. I can
53 communicate what inspires me and express this through my own inspired creation"*.
54
55

56 *JEDI principled Leadership and discourse*

57
58 The implementation of justice-oriented practice matters for both learner and educator.
59 Hernandez and Boitano recommend a systemic leadership approach to ring fence opportunity
60

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3 for wellbeing (2019). Practice implications include supporting teachers, empowering them, and
4 building positive relationships to offset burn out as well as improve job satisfaction and general
5 wellbeing (Karakus et al., 2024). An 'ecology of leaders' committed to the creation of a
6 'relational space' built on hopeful trust and reflective learning across organizational boundaries
7 is needed (Bradbury-Huang et al, 2010; 109). The relational and ethical components of leading
8 serve as catalysts for positive change (McMahon, 2007).
9

10 Within our JEDI discourse, we respond to Miller's call for bravery as we converse about race
11 (2020a) and acknowledge the profundity of reference to issues of race as a 'silenced dialogue'
12 (Azzarito and Solon, 2005). Across national curricula, a shared responsibility connects readily
13 to the purpose of sustainable goals to reduce inequality toward wellbeing (United Nations,
14 2015). Robust dedication to addressing issues through leadership's prevailing influence
15 across physical education continues (Fitzpatrick and Santamaria, 2015). Examples of the
16 integration of fundamentally accessible wellbeing in curricula have shown a range of
17 advantages resulting from physical literacy, physically active learning personal identity, eating
18 and living well through a concept of neutrality, emotional reliance through physical strength to
19 facilitate equitable wherewithal towards healthy active living (Murray et al., In press). A
20 'lifelong' ethos, such as depicted in the developmental lifelong continuum, interrupts notions
21 of temporary gain to transcend curricular limiting opportunities (Gabbard, 2021). Often
22 educators and learners wish to continue with an opportunity. However curricular constraints
23 make limit this aspiration. Access to education around water safety and development of this,
24 together with aquatic competence remains inequitable despite UK residents living on an
25 island, for example. There are plentiful places to access blue space safely if conditions and
26 prerequisites are met. Swimming improves health, lowering stress, and can contribute to
27 improved long-term health benefits. Aquatic activity aids in strength and balance development,
28 developing social, physical and cognitive skills (Swim England, 2017). While school provision
29 is free and systemically implemented, many children remain exit this without meeting national
30 guidelines or being able then to participate in out-of-school swimming pool opportunities.
31 Furthermore, they may be at more risk when playing in green spaces near blue ones. Children
32 of black or Black British ethnicity are 3.5 times more at risk of drowning than their white
33 counterparts (NCMD, 2023). Physical education is conceptualised differently across UK home
34 nations, however, the importance around and commitment to water competence remains
35 unified (DfE, 2014, CfE, 2004,
36
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40

41 **Spaces- potestas and potentia, through and beyond curriculum**

42 Parks and natural areas are increasingly recognised as valuable learning spaces, supporting
43 cognitive development, social interaction, and wellbeing. Research by Potter et al. (2023)
44 highlights that green and blue spaces can reduce stress, enhance mental health, and
45 encourage physical activity. In urban environments, these spaces offer children informal
46 opportunities to learn through exploration and play. The availability and quality of greenspaces
47 vary significantly by socioeconomic status, impacting access to outdoor learning
48 environments. Sun et al. (2022) found that wealthier neighbourhoods tend to have more parks
49 and better-maintained greenspaces, while low-income areas often lack such amenities. These
50 disparities affect not only physical wellbeing but also children's ability to engage with nature-
51 based learning environments. In Glasgow, for example, research demonstrates that deprived
52 areas have significantly lower-quality greenspaces, limiting the social and health benefits
53 available to residents (National Improvement Framework, 2020).
54
55
56

57 Self- space is a movement concept that offers the chance to explore being still and moving
58 within a smaller space within a wider surrounding (Graham et al., 2020). Through a health
59 perspective, it is a comfortable social distance from which individuals can choose to remain
60

1
2
3 within and from others (Vine, 1982). Through a fundamental movement perspective, it is vital
4 that children are provided varied and exciting opportunities to navigate wider spaces. First and
5 foremost, every child needs to be comfortable in their personal identity (Adams and Murray,
6 2022). To become and stay so, the significant others; the family and community members,
7 inclusive of educators will wish to reflect and represent each child across the living
8 curriculum. A living curriculum rests upon learning which necessitate dialogue about “enquiry,
9 knowledge, practice, learning and teaching approaches which focus on engagement between
10 and among learners, teachers, practitioners, communities, scholars, and with self and texts
11 experiences” (Marshall, 2011; 1). Using JEDI principles, the geography of space alongside a
12 community informed approach to and through the curriculum will offer means to ensure the
13 lived aspects are culturally representative and meaningfully implemented. Metaphysically, the
14 concept of power is intuitively enticing as critically thinking tool by which the mind makes sense
15 of what we can think of, how we attribute ideas and to whom and how we situate these amidst
16 the complex modes (Marshall, 2013).
17
18

19
20 To exercise agentic power (Campbell et al., 2009), in this instance, learners need equitable
21 space and opportunity to build personal agency through their own physical and metaphysical
22 selves as they extend to connect with other opportunities and possibilities. Space awareness,
23 alongside effort and relationships of movement, is developed by children as they think about
24 spatial considerations through movement (Graham et al., 2020). When these concepts are
25 developmentally appropriately implemented across a variety of movement experiences, over
26 an array of environmental considerations, the ecological promises of exciting and engaging
27 movement increase.
28

29
30 Looking to wider spaces, the Greenspace Toolkit from Natural Resources Wales (2022)
31 contends equitable access involves both physical proximities, ensuring greenspaces are
32 within 300 meters of homes and active community involvement. Promoting local ownership
33 and participation in greenspace design ensures that these areas meet the needs of diverse
34 populations, transforming them into inclusive learning environments. Greenspaces also play
35 a critical role in urban resilience, particularly in the context of climate change. As cities face
36 rising temperatures and extreme weather, blue-green infrastructure, like wetlands and rain
37 gardens, serves both ecological and educational functions. Initiatives such as the Central
38 Scotland Green Network (CSGN) restore ecosystems and provide accessible greenspaces
39 for communities, enhancing opportunities for outdoor learning and social cohesion (National
40 Improvement Framework, 2020).
41

42
43 Progressive education emphasises the connection between space and teaching practices
44 (Mulcahy et al., 2015). These colleagues attest that pedagogy and learning spaces are
45 interlinked in a dynamic relationship that evolves through interaction. Open-plan classrooms
46 or outdoor areas are often used to promote collaborative teaching and active learning.
47 However, space alone cannot drive change. Teachers and students need to actively engage
48 with new environments for meaningful transformation to occur. Government-funded childcare
49 programs in Scotland further promote outdoor activities by encouraging nurseries to integrate
50 greenspaces into early education (Scottish Government, 2017). These efforts illustrate the
51 potential of natural environments to serve as inclusive spaces that cater to children from
52 diverse backgrounds, fostering both education and environmental awareness. Table 1
53 exemplifies ways for schools to effectively embrace a justice-oriented approach to getting out
54 and enjoying the environment as children learn.
55

56
57 Table 1 Environmental opportunities **to move the kinesphere** around our body out through
58 other spaces.
59

Space	Examples
-------	----------

Indoor classroom	e.g. small spaces at front/back of classroom.
Indoor larger space	e.g. school cafeteria, multipurpose space, large classroom, gym.
Outdoor grey space	e.g. tarmac playground, risk assessed space between buildings.
Outdoor green space	e.g. in/around school, risk assessed local green space, local park.
Outdoor blue space	e.g. in, around a play pool-tub on school premises, by a pond, the seaside, river, water park etc.
Specialised spaces/terrains	e.g. school/local pool, bike track, ice rink, dry ski slope, running track, local gym, parkour/agility venue and so on.

N.B. Risk assessment with health and safety practice underpins all movement -environmental planning and implementation.

This useful environmental framing of planning to make good use of existing spaces across physical activity, from physical education to wider learning opportunities (typifying educational-community settings).

Affordances and Constraints as means to create accessible physically active learning

Affordances and constraints theories provide a valuable framework for promoting equality in physically activity environments, particularly in educational settings. Developed by Gibson (1977), the theory describes how environments offer affordances, which are opportunities for actions that create accessibility based on individual needs, abilities, and perceptions, while constraints limit these possibilities. Affordances are things across the environment that can aid development (Gibson, 1977) and can effectively support physical activity and wellbeing (Sando and Sandseter, 2020). By carefully designing and adjusting environments to maximise affordances or more commonly called opportunities and reduce constraints, schools can create inclusive spaces that promote equitable access to physically active learning and wellbeing for all students (Pardali et al., 2024). In early childhood and school settings, physical affordances play a central role in fostering equality. Physical affordances can be features such as pathways, open fields, natural elements, and adaptable playground equipment these all can enable diverse types of play, catering to varied interests and abilities.

Newell's (1986) triangulation approach to constraints offers the educator and learner explicit means to use constraints to better contextualize the plan around the pupil, effectively using the learning environment to implement an equitable means to experience the learning (1986).

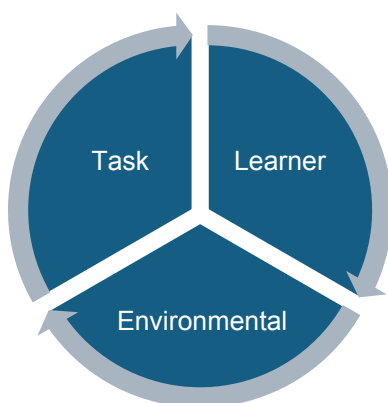


Figure 1. Constraints inform stakeholders in what is both manageable and meaningful for each known and emergent context.

Equitable ways to embody constraints and optimise affordances remains the underpinning for all education. Terminology here speaks to ways the body can translate movement across the given environment. Constraints led pedagogies sit upon the theoretical premise that in

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2
3 knowing of learner and environmental constraints, the educator can then effectively plan the
4 learning and teaching sequence (Newell, 1986). By connecting with principles of JEDI to help
5 open access to opportunities for transformative experiences and learning. We suggest that
6 our pupils need developmentally appropriate time and space to develop agency of their
7 resources to exercise more autonomy over chances to actively engage in movement when
8 experienced in different ways; spaces and places.
9

10 Physically active learning (PAL) is such a delightful means to embody learning. It is noted for
11 effectively increasing physical activity across the school day (Bacon and Lord, 2021).
12 Certainly, physical activity is associated with wellbeing (Biddle et al., 2019, Howells and
13 Bowen, 2016). Equally academic achievement is touted with improvements in executive
14 thinking and metacognition (Alvarez-Bueno et al., 2017; Murray and Napper-Owen, 2021).
15 Children can then choose from the status of where they are 'being' to fairly have means to grow
16 into what they wish to be; to 'becoming'. Critical thinking is an innate disposition however it
17 requires explicit scaffolding to be of any service in bridging these two concepts (Facione et al.,
18 2000). UNESCO's quality physical education guidelines explicate the need for inclusive
19 curricula (2015). They illuminate gender, disability, and minority groups, as part of these
20 considerations. More broadly speaking, inclusion encompasses concepts of awareness, of
21 respect and of understanding (Thompson, 2017).
22
23
24

25 Affordances are enablers. They permit the facilitation of opportunity (Gibson, 1979). Social
26 affordances which are opportunities for interaction within a setting, are essential for fostering
27 inclusion and equality, particularly in educational contexts. Social environments shape how
28 children experience the outdoors and interact with each other, which can influence their
29 engagement and wellbeing. Within the Norwegian and Estonian school context, some
30 students reported enjoying activities like "walk and talk" during recess. This fostered social
31 bonds and inclusion, particularly for adolescents seeking peer interaction (Clark & Uzzell,
32 2006). Teachers who actively promoted PAL positively influenced students' attitudes and
33 enjoyment, making the activities feel inclusive and engaging. Teachers' involvement also
34 reduced social constraints, as their support helped bridge potential gaps between students
35 with varying levels of experience or interest. This has also been seen in the UK during the
36 daily mile, where time spent in 'walk and talk' mode helps the class's overall teamwork and
37 social interactions (Howells et al. 2019).
38
39

40 Opportunities for children to explore through planned and emergent movement, across formal
41 to less formal physical activity are not equitable (Rogers et al., 2024). Using a functional 24-
42 hour movement behaviours paradigm depicts the interrelation impact of factors of time spent
43 in physical activity, sedentary behaviours, sleep, against one another (Reilly, 2022). With time
44 across these impacting one another, it is crucial that children maximise their own constraints
45 as it were, as well as those around their respective environments. Educators, informed by
46 such ecological insights could better contextualise the learning with this added dimension and
47 act as advocates for space enabling greater movement across wider spaces to assist in means
48 to improve current wellbeing outcomes (Fairclough et al., 2023). Undoubtedly, educators play
49 a key facilitator role towards the creation of a motivating and purposeful learning climate
50 (Reeve and Shin, 2020) and this extension of space outside of school and the value of space
51 to support wellbeing. Agentic wellbeing concerns having the capacity and wherewithal to
52 recognise and regulate the elements that factor into your health, when linked to space it is the
53 understanding of the impact a place and space can have to help with your own wellbeing.
54
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56

57 *JEDI principled pedagogies*

58 In our work, we wholeheartedly embrace the concepts of justice, equity, diversity and inclusion
59 (JEDI) as part of our working ethos and indeed, pedagogical approaches. We use the JEDI
60

principles as a mechanism to position and acknowledge the value of *me, myself and I*, within and around self-space. This notion we continue from self to wider spaces as we re-tool what potential opportunities are around us, as means to enjoy and exert our agentic wellbeing as we gain awareness in the joys of participating with *you, we and us*. Opportunities to engage in meaningful and enjoyable pursuits we contend, are extended, with greater affordance thereby available.

Jedi Public Health is a school focused approach from elementary across secondary school phases. It favours notions whereby health equity is sought by adapting features found across daily living (Geronimus et al., 2016). For school practice, this approach embodies the notion of framing the capacity to attain a challenge as learnable and expandable instead of as a fixed capacity. Our ecological affordance approach blending being and becoming using the promises of affordance to best known and emergent constraints sits companionably with this wider lens.

Case study

For example, in seeking equitable ways to encourage male and female student teachers varied in aquatic skill competence and confidence, we had students co-construct the access and use of the water-based learning and teaching environment to suit both their needs and aspirations as informed by educational policies around child water competence (DfE, 2013). This resulted in a variety of pedagogical decisions which remained student-informed and centred, using self-identified contextual constraints (e.g. water/changing environments) to better the planning and experience of our teaching and learning.

1. Students entered the water at different times (5 minutes apart). Women wishing to enter before their male counterparts did so. At the end this system worked in reverse. Men and women were allowed to participate separately or alone. The full cohort elected to participate as a mixed group. By using an audit puzzle of constraints (Adams and Murray, 2022), to inform all of what was needed for equitable respectful provision and participation, were able to maximise this professional development opportunity.
2. Students could take one of three roles; participant in the water, dry side assistant, water-based assistant.
3. Game forms remained throwing and catching (fundamental movement skill; FMS based). That eradicated the need for aquatic and or advanced motor skills.
4. The environment was organised so that the floor of the pool remained accessible to students.

Despite the acknowledgment that FMSs were utilised, all participants had an opportunity to combine these with aquatic and or any other advanced skills. Outcome-wise, all students improved their respective water competence, understanding and following of water safety rules, and enjoyed the team-based outcomes of working in small teams in cooperative competitive games (Murray et al, 2024).

Beginning with the premise that participation in the movement is inequitable, affords us space to consider known narratives and hopefully to use these to better inform a justice, equity, diversity, and inclusion principled practice. But what does that mean for practice? Certainly, intersecting factors have been identified for increasing opportunities. Protected characteristics offer an entry point to identify and illuminate the intersections of inequality of health and wellbeing and ways to improve these (PHE, 2021).

Crenshaw's work signposts ways for educators to both illuminate and utilise the existing inequalities toward the advancement of an equitable solution (1989). In this case the focus is on around best opportunity to enjoy moving through the environment. The Global Matrix 4.0

Scotland ranks children in Scotland as among the most sedentary worldwide. Inequality worsens with the finding that children more deprived are more sedentary than their less deprived counterparts (Bardid et al., 2021). Across England, children identifying as White British are most likely to participate in physical activity, more so than children identifying as black, other, or Asian (OHI&D, 2022). We hope to build upon the gained momentum of these illuminated knows.

Part of this issue relates to motor competence, and the extent to which children have had consistent quality opportunities to develop and then implement their motor competence into a practice when in curricular time, across wider school experience, and after school into community provision. Motor skills develop along a continuum (Gabbard, 2021). Motor skills can develop typically and or atypically. Every basic agility- balance and coordination approach will provide ways for children to explore, acquire, transfer and refine these from simple to more complex scenarios. Crucially all such offerings consider JEDI principles to provide planned and child-initiated/ led ways to apply reflective of and respectful to their culturally rich backgrounds. Bandura suggests that self-efficacy is built through mastery experiences. Modelling the required competence is also useful. Supporting strategies relate to self or peer support, as accompanied by our emotions (2008). Stodden et al. (2008) model means by which children will engage to disengage in physical activity. Through a JEDI lens, the four factors of physical activity, motor skill competence, perceived motor competence, and physical fitness could be complicated and compromised without the removal of (potential) barriers towards these outcomes. Belonging is a crucial requisite for wellbeing (El Zaatari and Maalouf, 2022).

A justice orientation seeks to ensure that all children, diverse in psychological, physical and social differences are seen and heard, celebrated for who they are, across their daily lives. Healthwise, human lifespan is influenced and impacted by three main factors; sedentary behaviours, patterns of sleep, and physical activity (Groves et al., 2024). These are mediated in part by movement competence. Public Health England acknowledges physical activity inequality (2021). Physical activity remains a protective factor for physical and mental health (Pfeffer and Rhodes, 2023). The role of motor competence remains paramount (Hill et al., 2023). Once children acquire the basics of agility, balance and coordination using their own bodies across self and wider spaces, they can transfer this awareness and competence onto other manipulatives and more varied terrains endeavour (Murray and Howells, 2023). In and around physical education, notions of social justice have long since been explicated (Fernandez-Balboa, 2017; Kirk and Tinning, 1990) and more recently, applied (Lynch, et al, 2020). Building upon the wealth of informed practice, we bring explicit attention to deploying JEDI principled practice to build agentic understanding of constraints and the capacity to mediate our embodied approach.

Example 1: In preparation for curricular participation

Building and taking ownership of our bodies as a gift and catalyst for wellbeing

Biological maturation, power and overall muscle strength are interrelated in adolescents (Yapici et al., 2022). In essence, this growth period is a crucial time to build strength. As such, opportunities across primary and secondary educational phases offer useful spaces and places to extend the movement patterns commenced through early years integrating resistance tasks across learning as to build muscle mass across adolescence. Whilst a call has been made to gather greater evidence in regards exercise type, duration and activity intensity (PHE, 2020), colleagues are contributing to this knowledge research base. Children from aged seven to fourteen were found to significantly improve muscular endurance, cardiovascular endurance and range of motion, when participating in PE lessons that

integrated resistance challenges and games across the curriculum twice weekly across a full academic year. Body mass index and body composition significantly reduced. Where more teacher-centred direct instruction was favoured, motivation to engage in physical activity reduced. In contrast, PE lessons that incorporated learner centred pedagogies, connecting activities and ideas from PE to lunchtime peer led/supported play, motivation and engagement remained high (Murray, Murray and Howells, 2023).

Structured choice following co-construction of the learning opportunity with educator and class working together builds and models movement equity. Engaging and re-engaging children through PE requires curricular opportunities to be socially and culturally relevant (Hall, Treacy and Gray, 2017).

Figure 1. depicts a progression spiral created for novice to more proficient movers. Any lesson plan 'set' needs to remain open enough such that it remains developmentally appropriate- accessible for the learners regardless of school stage or learner age. Building physical literacy gets our children comfy and able and excited to get out and about.

Start with the body; their body; your body! Consult with children to draw from their prior experiences, what they enjoy, and what they might like to try.



Proficient. Is ready and able to transfer these known skills in varying contexts, to identify them and know how to adapt them to meet differing movement challenge demands. E.g. Create a strength set that would prepare your team to successfully complete an agility challenge requiring static and dynamic strength to climb, swing across the set, and land using control in targeted ways.



Intermediate. Is ready (strong enough now) to target upper, middle and lower body, learning muscle names. Application of these into pair and small group movement problems. E.g. in your group select 3-5 moves to get in and out of and hold. Share these with another group and see if they can identify the main muscles being used to keep the form controlled.



Novice. Equitable entry- agility, balance and coordination to build strength.

Figure 1b. A progression spiral to build physical literacy through JEDI principled practice. Reads from lower to upper- as with a progressing spiral (Bruner, 1960).

Educating the pupil and the educator at the same time, in the same space is of value. Colleagues can model learning how to transfer weight, improve balance, and build strength for example through movement educationally efficient and developmentally appropriate programs.

Agility, balance and coordination feature across the breadth of physical education curricular sequence- from novice to more proficient movers, beginning from early years through secondary progression. The use of a child's own bodyweight is a valuable practice known to positively impact many health indices; physical and mental (Faigenbaum, 2000; Stricker, 2002).

Health and wellbeing Experience and Outcome (Curriculum for Excellence: health and wellbeing current iteration). Placed within a lesson plan bounded approach, a body resistance based lesson might feature in the following way.

At a novice level-Early years: e.g. I am learning to move my body well, exploring how to manage and control it and finding out how to use and share space. (HWB 0-21a)

Moving through primary: e.g. I am discovering ways that I can link actions and skills to create movement patterns and sequences. This has motivated me to practise and improve my skills to develop control and flow. (HWB 1-21a)

Through secondary: As I encounter a variety of challenges and contexts for learning, I am encouraged and supported to demonstrate my ability to select and apply a wide range of complex movement skills and strategies, creatively, accurately and with consistency and control. (HWB 4-21a)

Exemplified through a lesson might feature in the following way as positioned with other learning intentions, such as group work cooperation, problem-solving, and taking on differing roles to collaborate, support, follow and lead peers towards the agreed task.

Lesson plan

Learning objectives:

To be able to enter, hold, and exit a sequence of body resistance moves with control.

To be able to show and describe to a peer a movement sequence that involves lower, core, and upper body strength moves.

To be able to work with a peer and or small group of peers and come up with movement solutions to movement based problems that aim to develop body strength.

"I can try out a variety of strength building moves and with peers, develop a sequence that develops upper, core and lower body strength".

1
2
3 Organisation: Flat open space
4

5 Equipment: Body to be used as a strength building piece of equipment, anatomical human
6 body posters (optional)
7

8 Prior learning: Basic movement agility explored through gathering and scattering body moves,
9 when in self space, and traveling. Comfortable and competent to move body into differing
10 levels of low (own body along floor level), medium (own body at waist level) and high (body at
11 full length using usual mode for mobility) set tasks. Accustomed to listening and speaking
12 effectively and respectfully together in pairs/small groups. Confidence to ask for assistance
13 from educator/and or peer for movement challenges. Practiced with looking at posters that
14 show muscle groups as part of the learning classroom space.
15

16 Lead in activity: Find a space across the floor. Create a base of support for your starting point.
17 This is your 'home'base- start and begin here. Make a star shape to create a space for your
18 own kinesphere (self space). Find a show a peer 3-5 different ways to hold your body position
19 for 3-5 counts when facing down, facing upwards, and facing each side. Hold the position and
20 think about what happens to your body as you attempt to hold and show the position with
21 control. What do you need to do to be stable? Where do you feel muscles working? Where
22 are you building stronger muscles?
23

24 Progression. From your home base, vary the way you enter and exit the skill. Try and show a
25 basic position e.g. plank- in different ways e.g. face down, face up, to side. What other muscles
26 are being engaged? Check the poster. Try it out, share with a partner to check.
27

28 Progression. Challenge yourself by changing the contacts on the floor. Think about contacts
29 on the floor e.g. two feet/wheels count as two, one hand/arm counts as one e.g. from 2 to 3 -
30 standing star shape on toes to side position star with two feet and one hand contact. What
31 happens to the muscles where the base of support is shifted? What happens to your balance?
32 Start from home base and create a set of challenges that show changes in the contacts in
33 your base of support.
34

35 Progression. Vary the level of the positioning. From standing down to a horizontal floor level
36 movement entry point e.g. A lunge from standing into a face down star shape, into floor based
37 4 contact (hand-hand-foot-foot) scooting along the floor.
38

39 Progression. With a partner/small group, choose 4-5 of your movements and create a routine.
40 Aim to hold each move so that your muscles engaged are working and building strength (3-5
41 counts per move).
42

43 Progression: Show another group. Try theirs. Return to your group and think about ways to
44 show and help another group learn your movement challenge set. What can you say? What
45 might you model? How will you keep everyone included and feeling comfortable? Compliment
46 the other group on their efforts and share with them your favourite movement from their
47 challenge.
48

49 Plenary. Why is having strong bones and muscles so important for our general health e.g. our
50 mood, our brain health, our balance, our range of motion? Choose one benefit you find helpful
51 for your own health. How might these moves be incorporated to your activities when away
52 from school?
53

54 Find another pair/group and take one of the large posters. Using the posters, show them where
55 you felt your strength building today. Identify the muscle group names. Share any challenges
56 you experienced and solutions you found to these.
57
58
59
60

Such work offers credible input to better inform the selection of health relating physical activities into and around the curriculum. Despite its seeking to be inclusive, integrating developmentally appropriate principles to underpin the motor skills and competences, and to progress the learning, knowledge and understanding around these concepts, any unexpressed assumptions and assertions may impede equitable implementation. Barriers to participation in young adults with obesity for example, involve fear, concerns around their weight contributing to this fear, and finally, regarding the consequences of their fears (Hamer, Larkin and Dey, 2021). Therefore, educators need to ease these fears and show how accessible the activities are for all. Feasibly we may find that even in PE (an inclusive educational curriculum subject), an element of self-selection and avoidance is going on. If this is the case, then implications for extracurricular and indeed community wide participation could proffer as useful ways to assist in solution finding.

Applying affordances and constraints theory to educational physically active environments emphasise the importance of inclusivity, flexibility, and social engagement in promoting equality. The following focuses on how dance is important for inclusivity in bringing the world to the class through the celebration of differing ways to move through rhythm with one another.

Example 2: Through the curriculum -e.g. Lesson plan

Learning about and celebrating different cultures through rhythmical movement

In the OECD review (2021) of Scotland's Curriculum for Excellence, one of the recommendations was to create a better balance between depth and breadth of learning across the curriculum. Adopting an interdisciplinary (IDL) approach allows learners to make meaningful links between the curriculum and their experiences. It also allows a space for learners of all backgrounds and all abilities to showcase their learning in ways that suit their needs and identities (Education Scotland, 2022).

The Department for Education in England recommends that schools include dance in their PE curriculum to match the breadth and ambition of the national curriculum (2023). Dance can help students develop a variety of skills, including:

- **Coordination:** Dance can help students develop their coordination, flexibility, and strength.
- **Spatial awareness:** Dance can help students develop their spatial awareness.
- **Social interaction:** Dance can encourage social interaction and provide a positive outlet for emotions.
- **Group work:** Dance can help students learn to work together in groups.

The Welsh curriculum further reinforces the need to consider movement frameworks, choreographic elements, and performance aspects (Gov.Wales 2020). Dance is explored through expression, enacting movement concepts for children to experience and a rich series of opportunities in Ireland (Department of Education, 2024).

Here follows an example of teaching fictional storytelling through the medium of dance, which also showcases cultural heritage and identity.

From the Curriculum for Excellence, dance, drama and writing can be linked:

Dance: I can explore and choose movements to create and present dance, developing my skills and techniques. (EXA 2-08a, Curriculum for Excellence, add DATE)

Drama: I have created and presented scripted or improvised drama, beginning to take account of audience and atmosphere. (EXA 2-14a, Curriculum for Excellence, add DATE)

Writing: I can convey information, describe events, explain processes or combine ideas in different ways. (LIT 2-28a, Curriculum for Excellence, add DATE)

Key Teaching Point: Highlight that Bollywood dance reflects Indian culture, festivals, and storytelling through movement.

Learning Intention: We are learning to tell a story through dance.

Success Criteria:

- I can identify the significance of Bollywood dance to cultures in South Asia
- I can explain how Bollywood dances are used to tell a story
- I can create my own fictional story through Bollywood dancing

PAL focus through movement concepts:

Non-manipulative/Turning, twisting, balancing, transferring weight

With people: Leading/following, groups

Effort: Fast, slow

Direction: Forward/backward, right/left

Warm up through educational active elicitation

Rhythmic warm up - Play instrumental Bollywood tunes and ask learners to move around the space, highlighting the key areas we are focusing on from the PAL movement wheel.

Highlight that Bollywood dancing originates in India and is a common form of dance for many from South Asian communities.

Emphasise how Bollywood dance blends traditional Indian dance styles (e.g., classical dance like Bharatanatyam) with modern influences (e.g., hip-hop, jazz).

Activity 1:

Work as individuals to mirror and learn some basic Bollywood moves:

Step 1: "Thumka" (hip movement) – a signature hip twist.

Step 2: "Balle Balle" (Punjabi step) – arms up, bouncing side to side.

Step 3: "Namaste" (hands together) – bowing slightly with hands in prayer position.

Step 4: Arm twirls with finger snaps (adding flair and style).

Step 5: Moving in a circular formation with small jumps or skips (to promote teamwork).

Activity 2:

Work with a partner to practise the above moves together in ways that work for respective constraints and preferences.

Activity 3:

Work in groups of 4 to 6 to create a dance using the above move to tell a short story.

Activity 4:

Showcase your stories and dances with other groups.

Peer Assess each other's work commenting on how PAL movement concepts were incorporated into the dance.

Closing point:

To understand that storytelling, expression, dance and emotion are common to all cultures and there are many ways in which we can value global traditions and heritage.

Figure 2. Lesson plan depicting a dance movement sequence.

When children have had plenty of varied ways to develop, refine and transfer their acquiring movement related acumen, it is possible to increase more meaningful activity for other worthy reasons and outcomes. The medium of visual arts is depicted in our final example.

Example 3: Across the curriculum

Physically Active Learning (PAL) through Visual Arts-using space implicitly toward learning outcomes

- PAL in order to Get it right for every child; GIRFEC (example of Education Scotland, 2024)
 - from within the classroom (e.g. connecting with the visual image, perceptions, I see I think I feel, illustrate through a musical count: clap/stamp/stomp)
 - Other bigger indoor spaces e.g. gym areas (e.g. express movement without equipment making use of space/utilising resources as you progress)
 - Outside the school building (e.g. extending learning from observing the environment and chalk your own painting)

Outdoor learning experience



Figure 3. Painted picture of a landscape as inspired following outdoor exploration

Have a go. Choose (create) an image of value to you

- Engage in I see, I think, I feel sharing with colleagues

- Consideration to whole environment for learning:
 - from within the classroom
 - other areas inside the school
 - outside the school

From the Curriculum for Excellence, Movement skills, competencies and concepts, Music and Literacy can be linked:

Movement skills, competencies and concepts: As I encounter new challenges and contexts for learning, I am encouraged and supported to demonstrate my ability to select, adapt and apply movement skills and strategies, creatively, accurately and with control. HWB 2-21a / HWB 3-21a

Music: Inspired by a range of stimuli and working on my own and/or with others, I can express and communicate my ideas, thoughts and feelings through musical activities. EXA 0-18a / EXA 1-18a / EXA 2-18a

Literacy- Enjoyment and choice: I enjoy exploring and playing with the patterns and sounds of language and can use what I learn. LIT 0-01a / LIT 0-11a / LIT 0-20a

Key Teaching Point: Highlight that through the visual arts being used as a stimulus to action democratic pedagogy through movement.

Learning Intention: We are learning to express ourselves through movement.

Success Criteria:

- I can identify the significance of the visual arts to demonstrate my ability to select, adapt and apply movement skills.
- I can express and communicate my ideas, thoughts and feelings about my painting through musical activities.
- I can create my own patterns and sounds of language through what I see, think and wonder about my painting.

PAL focus through movement concepts:

Warm up through educational active elicitation

Rhythmic warm up – Connect with the selected painting and think about what song or piece of music it makes you think about. Play instrumental linked music and ask learners to move around the space, highlighting the key areas we are focusing on from the PAL movement wheel.

Highlight that we are all unique and what we see, hear and wonder when we look at a painting will differ from one person to the next.

Emphasise how our painting may make us think about different musical genres but no answer is incorrect because it is specific to the individual.

Activity 1:

Work as individuals or in small groups:

1
2
3 Share what song your painting made you think about.

4
5 Is it a fast song or a slow song?

6
7 Can you tap, clap, jump, skip in time to the music?

8
9 Activity 2:

10 Work with a partner can you compare each other's song and can you think about the lyrics.

11
12 Clap out the syllables of the lyrics that make up your chosen song in time to the music.

13
14 Activity 3:

15
16 Work in groups of 4 to 6 to create your own picture collaboratively.

17
18 Think about a title for your painting and can you create an accompanying piece of music
19 using materials found around your setting. You can stomp your feet, clap your hands, click
20 your fingers, whistle or use object to tap or drum etc.

21
22 Activity 4:

23
24 Showcase your titles painting and musical creation with other groups.

25
26 Peer Assess each other's work commenting on how PAL movement concepts were
27 incorporated into the task.

28
29 Closing point:

30
31 To understand that painting can provide a gateway of expression through looking, thinking,
32 wondering and creating. Acknowledgement that all of our creative expressions should be
33 valued, seen and appreciated.

34
35
36 Appreciation of the visual arts can be enriched through embodied pedagogy across the senses
37 and incorporate movement. Using the landscape painting exemplar as a provocation learners
38 can go for a walk and speak about what environmental elements they have observed. On their
39 nature walk they can sketch and or photograph materials and then create colour montage
40 using art materials such as pencils, crayons, pastels, paints etc.

41
42
43 The importance of dialogue in eliciting voice and exemplifying how provocations are utilised
44 in practice enable the learner to engage with movement. Recognising the importance of
45 highlighting creativity in the lives and education of children is vital. Creative approaches enable
46 children to think innovatively, complementing an inclusive, play-based method. This
47 perspective aligns with the view that learning is a social process; children need opportunities
48 to think, wonder, converse, negotiate, and collaborate with their peers and adults (Winsler,
49 2003). Nearly all children, regardless of their cultural background, engage in play. When play
50 is discussed, movement is implied. This concept can be explored from either a proximal or
51 evolutionary/functional perspective (Picciuto and Carruthers, 2014). According to Picciuto and
52 Carruthers (2014), children who participate in pretend play are actively developing their future
53 creative selves as they transition to adulthood (ibid). Through this embodied experience,
54 children are encouraged to utilise their constraints (Newell, 1986), and those around them to
55 meet the learning task set.

56
57
58 Practitioners play a vital role in this learning approach. Though one of the initial challenges is
59 that not all practitioners perceive themselves as physically active, leading to a lack of
60 confidence in implementing physically active learning practices. There are numerous crucial

components to consider when equipping practitioners with the tools needed for successful PAL implementation. Practitioner autonomy is of paramount importance, as empowering practitioners positively impacts their working environment (Parker, 2015; Wilches, 2007). Practitioners will wish to feel confident in their practice to relinquish ownership, assume the role of learning facilitators, and recognise the importance of interacting without interfering (Fisher, 2016). Holistic opportunities to build embodied practice using PAL through and beyond initial teacher education are encouraged.

Conclusion

Given the ongoing concern for inactivity across childhood (Bardid et al., 2022), and the inevitable interplay between policy and practice, bold leadership is required to redress the marginalization of children from activity. This section brings attention to pro-social attentive leadership needed to envision full access to personal and general spaces for wellbeing. As social beings, the notion of space for movement also extends to space for social connection. This paradigm is built on the premise that “survival is linked to the ways we connect with others” (Burkhardt and Nagai-Jacobson, 2002, 265). Frankl (2010) attests the power of being connected for a meaningful life. Recognition of the role space can stipulate also incorporates development of personal values and associated social progression (Uemura, 2018). Educational leaders have an advocacy role in social justice (Bogotch and Shields, 2014), and with this backdrop, that role comes into sharp focus.

The importance of equitable means to access and use learning spaces ought to be recognised through pedagogy for the facilitation of possibilities toward the transformative element of becoming. Urban greenspaces, social equity, and environmental sustainability can be further explored through access and prioritisation across and around our curricula. Sustainable development toward wellbeing for all, across all ages and stages remains a priority (United Nations, 2015). Whilst it is recognised that children are diverse culturally and linguistically (Holmes, 2023) we contend similar transformative opportunities to create equitable spaces translated out to the physical environment, as experienced through the physicality of participation, offer transformative opportunities for educators and wider communities to build a love of self and movement along this journey. Active use of a JEDI framework from self across wider spaces offers one tangible means to bring an authentically representative and celebratory living space to and for every child.

References

- Adams, S. and Murray, A. (2022) Primary physical education and its complex puzzle of diversity. In: Doull, K. (ed) *Teaching a diverse curriculum*. Learning Matters, London.
- Álvarez-Bueno, C., Pesce, C., Cavero-Redondo, I., Sánchez-López, M., Garrido-Miguel, M. and Martínez-Vizcaíno, V. (2017) Academic achievement and physical activity: A meta-analysis. *Pediatrics*, 140(6), e20171498. <https://doi.org/10.1542/peds.2017-1498>.
- Azzarito, L. and Solomon, M.A. (2005) A reconceptualization of physical education: The intersection of gender/race/social class. *Sport, Education and Society*, 10(1), pp.25–47. <https://doi.org/10.1080/135733205200028794>.
- Bacon, P. and Lord, R.N. (2021) The impact of physically active learning during the school day on children’s physical activity levels, time on task and learning behaviours and academic outcomes. *Health Education Research*, 36(3), pp.362–373. <https://doi.org/10.1093/her/cyab020>.

- 1
2
3 Barboza, M. H.C., Giannotti, M., Grigolon, A.B. and Geurs, K. T. (2024) A comparative
4 analysis of leisure accessibility and equity impacts using location-based and space–time
5 accessibility metrics. *Transportation Research Part A: Policy and Practice*, 190; 104237.
6 <https://doi.org/10.1016/j.tra.2024.104237>.
7
- 8 Bardid, F., Tomaz, S.A., Johnstone, A., Robertson, J., Craig, L.C.A. and Reilly, J.J. (2022)
9 Results from Scotland's 2021 report card on physical activity and health for children and
10 youth: Grades, secular trends, and socio-economic inequalities. *Journal of Exercise Science
11 & Fitness*, 20(4), pp.317–322. <https://doi.org/10.1016/j.jesf.2022.07.002>.
12
- 13 Boekaerts, M., Pintrich, P.R. and Zeidner, M. (2000) Chapter 1 - Self-Regulation: An
14 Introductory Overview, Editor(s): Monique Boekaerts, Paul R. Pintrich, Moshe
15 Zeidner, *Handbook of Self-Regulation*, Academic Press, 2000, Pages 1-9, ISBN
16 9780121098902, <https://doi.org/10.1016/B978-012109890-2/50030-5>.
17
- 18 Bradbury-Huang, H., Lichtenstein, B., Carroll, J.S. and Senge, P.M. (2010) Relational space
19 and learning experiments: The heart of sustainability collaborations. In: Pasmore, W.A.,
20 Shani, A.B. and Woodman, R.W. (eds) *Research in organizational change and development*,
21 vol. 18. Emerald Group Publishing Limited, Leeds, pp.109–148.
22 [https://doi.org/10.1108/S0897-3016\(2010\)0000018008](https://doi.org/10.1108/S0897-3016(2010)0000018008).
23
- 24 Braveman, P., Arkin, E., Orleans, T., Proctor, D. and Plough, A. (2017) What is health
25 equity? Robert Wood Johnson Foundation.
26
- 27 Bogotch, I.E. and Shields, C. (eds) (2014) *International handbook of educational leadership
28 and social (in)justice*. Dordrecht: Springer.
29
- 30 Bull, F.C., Al-Ansari, S.S., Biddle, S., Borodulin, K., Buman, M.P., Cardon, G., Carty, C.,
31 Chaput, J.P., Chastin, S., Chou, R. and Dempsey, P.C. (2020) World Health Organization
32 2020 guidelines on physical activity and sedentary behaviour. *British Journal of Sports
33 Medicine*, 54(24), pp.1451–1462.
34
- 35 Burkhardt, M.A. and Nagai-Jacobson, M.G. (2002) *Spirituality: Living our connectedness*.
36 Albany: Delmar Thomson Learning.
37
- 38 Brown, A. L. (1987). Metacognition, Executive Control, Self-Regulation, and Other More
39 Mysterious Mechanisms. In F. E. Weinert, & R. Kluwe (Eds.), *Metacognition, Motivation, and
40 Understanding* (pp. 65-116). Hillsdale: L. Erlbaum Associates.
41
- 42 Campbell, C. (2009) Distinguishing the power of agency from agentic power: A note on
43 Weber and the 'Black Box' of personal agency. *Sociological Theory*, 27(4), pp.407–418.
44 <https://doi.org/10.1111/j.1467-9558.2009.01355.x>.
45
- 46 Clark, C. and Uzzell, D. (2006) Children's perceptions of play experiences and play
47 preferences: A qualitative study of four Norwegian after-school programs. *Journal of
48 Adventure Education and Outdoor Learning*, 6(1), pp.1–17.
49
- 50 Crenshaw, K. (1991) Mapping the margins: Intersectionality, identity politics and violence
51 against women of color. *Stanford Law Review*, 43(6), pp.1241–1299.
52 <https://doi.org/10.2307/1229039>.
53
- 54 Crocetti, E., Albarello, F., Meeus, W., and Rubini, M. (2022) Identities: A developmental
55 social-psychological perspective. *European Review of Social Psychology*, 34(1), 161–201.
56 <https://doi.org/10.1080/10463283.2022.2104987>
57
58
59
60

1
2
3 Deci, E.L. and Ryan, R.M. (1995) Human autonomy: The basis for true self-esteem. In:
4 Kernis, M.H. (ed) *Efficacy, agency and self-esteem*. New York: Springer, pp.31–49.
5

6 Department for Education (2013) National curriculum in England: physical education
7 programmes of study. [https://www.gov.uk/government/publications/national-curriculum-in-](https://www.gov.uk/government/publications/national-curriculum-in-england-physical-education-programmes-of-study/national-curriculum-in-england-physical-education-programmes-of-study)
8 [england-physical-education-programmes-of-study/national-curriculum-in-england-physical-](https://www.gov.uk/government/publications/national-curriculum-in-england-physical-education-programmes-of-study/national-curriculum-in-england-physical-education-programmes-of-study)
9 [education-programmes-of-study](https://www.gov.uk/government/publications/national-curriculum-in-england-physical-education-programmes-of-study/national-curriculum-in-england-physical-education-programmes-of-study)
10

11 Department for Education (2024) Lifelong learning entitlement overview. Available at:
12 [https://www.gov.uk/government/publications/lifelong-learning-entitlement-lle-](https://www.gov.uk/government/publications/lifelong-learning-entitlement-lle-overview/lifelong-learning-entitlement-overview)
13 [overview/lifelong-learning-entitlement-overview](https://www.gov.uk/government/publications/lifelong-learning-entitlement-lle-overview/lifelong-learning-entitlement-overview).
14

15 Department of Education (2024) New primary curriculum. Available at:
16 <https://www.gov.ie/en/policy-information/027ad-primary-curriculum-framework/>.
17

18 Education Scotland (2016) *Vision 2030+: Concluding report of the learning for sustainability*
19 *implementation group*. Available at: [https://education.gov.scot/media/ulodcmfl/res1-vision-](https://education.gov.scot/media/ulodcmfl/res1-vision-2030.pdf)
20 [2030.pdf](https://education.gov.scot/media/ulodcmfl/res1-vision-2030.pdf).
21

22 Education Scotland (2017) Approaches to physical activity in the primary years. Available at:
23 <https://education.gov.scot/resources/approaches-to-physical-activity-in-the-primary-years/>.
24

25 Education Scotland (2023) Curriculum for excellence: health and wellbeing experiences and
26 outcomes. Available at: [https://education.gov.scot/media/5p4dvqvm/health-and-wellbeing-](https://education.gov.scot/media/5p4dvqvm/health-and-wellbeing-eo.pdf)
27 [eo.pdf](https://education.gov.scot/media/5p4dvqvm/health-and-wellbeing-eo.pdf).
28

29 Faigenbaum, A. D. (2000) Strength training for children and adolescents. *Clin Sports Med.*;
30 19(4):593–619.
31

32 Fairclough, S.J., Clifford, L. and Brown, D. (2023) Characteristics of 24-hour movement
33 behaviours and their associations with mental health in children and adolescents. *Journal of*
34 *Adventure and Social Studies in Behavior*, 2(11), p.21. [https://doi.org/10.1186/s44167-023-](https://doi.org/10.1186/s44167-023-00021-9)
35 [00021-9](https://doi.org/10.1186/s44167-023-00021-9).
36
37

38 Fernández-Balboa, J.M. (2015) Imploding the boundaries of transformative/critical pedagogy
39 and research in physical education and sport pedagogy: Looking inward for (self-)
40 consciousness/knowledge and transformation. *Sport, Education and Society*, 22(4), pp.426–
41 441. <https://doi.org/10.1080/13573322.2015.1050371>.
42

43 Gabbard, C.P. (2021) *Lifelong motor development*. 8th ed. Wolters Kluwer.
44

45 Gibson, J.J. (1977) The theory of affordances. In: Shaw, R. and Bransford, J. (eds)
46 *Perceiving, acting, and knowing: Toward an ecological psychology*. Hillsdale: Erlbaum,
47 pp.67–82.
48

49 Gibson, J.J. (1979) *The theory of affordances: The ecological approach to visual perception*.
50 Boston: Houghton Mifflin Harcourt.
51

52 Gordon, J.A. (2024) Doing wellbeing policy: A discussion on public policy making for
53 integrative prosperity. *Australian Journal of Public Administration*, 83(1), pp.134–139.
54 <https://doi.org/10.1111/1467-8500.12631>.
55

56 Gray, S., Treacy, J., and Hall, E. T. (2017) Re-engaging disengaged pupils in physical
57 education: an appreciative inquiry perspective. *Sport, Education and Society*, 24(3), 241–
58 255. <https://doi.org/10.1080/13573322.2017.1374942>
59
60

1
2
3 Graham, G., Holt/Hale, S., Parker, M., Hall, T. and Patton, K. (2020) *Children moving: A*
4 *reflective approach to teaching physical education*. 10th ed. New York: McGraw-Hill
5 Education.

6
7 Greenspace Toolkit, Natural Resources Wales (2022) *New greenspace toolkit*. Available at:
8 [https://naturalresources.wales/media/c1bp1yvg/new-greenspace-toolkit-eng-final-accessible-](https://naturalresources.wales/media/c1bp1yvg/new-greenspace-toolkit-eng-final-accessible-v4.pdf)
9 [v4.pdf](https://naturalresources.wales/media/c1bp1yvg/new-greenspace-toolkit-eng-final-accessible-v4.pdf).

10
11 Groff, E. (1995) Laban movement analysis: Charting the ineffable domain of human
12 movement. *Journal of Physical Education, Recreation & Dance (JOPERD)*.

13
14 Grogan, D. and Martlew, J. (2014) Exploring creative environments through the child's lens.
15 *Creative Education*, 5, pp.1528–1539.

16
17 Groves, C.I., Huong, C., Porter, C.D. et al. (2024) Associations between 24-h movement
18 behaviors and indicators of mental health and well-being across the lifespan: A systematic
19 review. *Journal of Adventure and Social Studies in Behavior*, 3(9), p.48.
20 <https://doi.org/10.1186/s44167-024-00048-6>.

21
22 Hamer, O., Larkin, D., Relph, N. and Dey, P. (2021) Fear as a barrier to physical activity in
23 young adults with obesity: A qualitative study. *Qualitative Research in Sport, Exercise and*
24 *Health*, 15(1), pp.18–34. <https://doi.org/10.1080/2159676X.2021.2012243>.

25
26 Hansen, K. (2014) The Importance of Ethnic Cultural Competency in Physical
27 Education. *Strategies*, 27(3), 12–16. <https://doi.org/10.1080/08924562.2014.900462>

28
29 Hart, C. S. (2019) Education, inequality and social justice: A critical analysis applying the
30 Sen-Bourdieu Analytical Framework. *Policy Futures in Education*, 17(5), 582-
31 598. <https://doi.org/10.1177/1478210318809758>

32
33 Howells, K. and Bowen, J. (2016) Physical activity and self-esteem: Jonny's story. *Education*
34 *3-13: International Journal of Primary, Elementary and Early Years Education*, 44(3),
35 pp.265–278. <https://doi.org/10.1080/03004279.2016.1171572>.

36
37 Holmes, M.A. (2023) Creating equitable spaces for all learners: Transforming classrooms
38 through biography-driven instructional conversations. *Linguistics and Education*, 77,
39 p.101230. <https://doi.org/10.1016/j.linged.2023.101230>.

40
41 Hwb (2008). Physical education in the national curriculum for Wales.
42 [https://hwb.gov.wales/curriculum-2008/key-stages-2-to-4/physical-education-in-the-national-](https://hwb.gov.wales/curriculum-2008/key-stages-2-to-4/physical-education-in-the-national-curriculum-for-wales/)
43 [curriculum-for-wales/](https://hwb.gov.wales/curriculum-2008/key-stages-2-to-4/physical-education-in-the-national-curriculum-for-wales/)

44
45 Jaekel, J. (2024) The role of physical activity and fitness for children's wellbeing and
46 academic achievement. *Pediatrics Research*. <https://doi.org/10.1038/s41390-024-03467-y>.

47
48 Jokela, M. (2022) Why is cognitive ability associated with psychological distress and
49 wellbeing? Exploring psychological, biological and social mechanisms. *Personality and*
50 *Individual Differences*, 192, p.111592. <https://doi.org/10.1016/j.paid.2022.111592>.

51
52 Karakus, M., Toprak, M. and Chen, J. (2024) Demystifying the impact of educational
53 leadership on teachers' subjective well-being: A bibliometric analysis and literature review.
54 *Educational Management Administration & Leadership*.
55 <https://doi.org/10.1177/17411432241242629>.

56
57 Khosla, R. and Venkatapuram, S. (2023) What is a justice-oriented approach to global
58 health? *BMJ Global Health*, 8, p.e012155.

1
2
3 Laban, R. (1966 [1939]) *Choreutics*. Annotated and edited by L. Ullmann. London:
4 MacDonald and Evans. (Published in U.S.A. as *The Language of Movement; A Guide Book*
5 *to Choreutics*. Boston: Plays.) (Initially written in 1939).
6

7 Landi, D., Lynch, S. and Walton-Fisette, J. (2020) The A–Z of social justice physical
8 education: Part 2. *Journal of Physical Education, Recreation & Dance*, 91(5), pp.20–27.
9

10 Liu, R., Menhas, R. and Saqib, Z.A. (2024) Does physical activity influence health behavior,
11 mental health, and psychological resilience under the moderating role of quality of life?
12 *Frontiers in Psychology*, 15, p.1349880. <https://doi.org/10.3389/fpsyg.2024.1349880>.
13

14 Marshall, E. (2014) Power, conatus and affects. In: *The spiritual automaton: Spinoza's*
15 *science of the mind*. Oxford: Oxford Academic.
16 <https://doi.org/10.1093/acprof:oso/9780199675531.003.0003>.
17

18 Matias, T.S. and Piggim, J. (2022) The unifying theory of physical activity. *Quest*, 74(2),
19 pp.180–204. <https://doi.org/10.1080/00336297.2021.2024442>.
20

21 McAuley, E., Elavsky, S. Motl, R.W. . Konopack, J.F., Hu, L, and Marquez, D.X. (2005)
22 Physical Activity, Self-Efficacy, and Self-Esteem: Longitudinal Relationships in Older
23 Adults, *The Journals of Gerontology: Series B*, Volume 60, Issue 5, September 2005, Pages
24 P268–P275, <https://doi.org/10.1093/geronb/60.5.P268>
25

26 Miller, P. (2020) Anti-racist school leadership: making ‘race’ count in leadership preparation
27 and development, *Professional Development in*
28 *Education*, <https://doi.org/10.1080/19415257.2020.1787207>
29

30 Mulcahy, C.M, Mulcahy, D.E. and Mulcahy, D.G. (2014) *Toward a Pedagogy Praxis*.
31 *Progressive Education and Critical Pedagogy*. First edition. Routledge.
32

33 Murray, A., Adams, S., Kaitell, E., Shaughnessy, J., and Murray, P. (2018) Using learning
34 domains to complement primary physical education teacher education in primary school
35 settings. *Physical Education Matters*, 13 (2), pp. 54-57. <https://www.afpe.org.uk/library/>
36

37 Murray, A.M., Murray, P.F. and Howells, K. (2023) Accessible resistance movement
38 experiences for elementary students and educators. In *Bridging Science and Practical*
39 *Appliance in Resistance Training*. Daniel A. Marinho, Pedro Forte, Maria Cirilo-Souse and
40 Henrique P. Neva (eds). Intechopen. ISBN 978-1-83768-551-6.
41

42 National Child Mortality Database (2023). Deaths of children and young people due to
43 traumatic incidents: Vehicle Collisions, Drownings, Violence and Maltreatment and
44 Unintentional Injuries National Child Mortality Database Programme Thematic Report.
45 <https://www.ncmd.info/wp-content/uploads/2023/07/NCMD-Trauma-Thematic-Report.pdf>
46

47 Newell, K. (1986) Constraints on the development of coordination. In: Wade, M.G. and
48 Whiting, H.T.A. (eds) *Motor development in children: Aspects of coordination and control*.
49 Amsterdam: Martin Nijhoff, pp.341–361. https://doi.org/10.1007/978-94-009-4460-2_19.
50

51 Newlove, J. and Dalby, J. (2023) *Laban for All*. Nick Hern Books.
52

53 Office for National Statistics (2022) *Quality of life in the UK: August 2022*.
54 [https://www.ons.gov.uk/peoplepopulationandcommunity/wellbeing/bulletins/qualityoflifeinthe](https://www.ons.gov.uk/peoplepopulationandcommunity/wellbeing/bulletins/qualityoflifeintheuk/august2022)
55 [uk/august2022](https://www.ons.gov.uk/peoplepopulationandcommunity/wellbeing/bulletins/qualityoflifeintheuk/august2022)
56

57 Pardali, E., Koni, I., Säre, E. et al. (2024) Pupils’ experiences of affordances in school-based
58 physical activity in Norway and Estonia. *Teaching and Teacher Education*, 124, p.104500.
59
60

- 1
2
3 Reeve, J. and Shin, S.H. (2020) How teachers can support students' agentic engagement.
4 *Theory Into Practice*, 59(2), pp.150–161. <https://doi.org/10.1080/00405841.2019.1702451>.
5
- 6 Ryan, R. M., and Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic
7 motivation, social development, and well-being. *American Psychologist*, 55, 68–78. doi:
8 10.1037/0003-066X.55.1.68
9
- 10 Schüle, S. A., Hiltz, L. K., Dreger, S., and Bolte, G. (2019) Social Inequalities in
11 Environmental Resources of Green and Blue Spaces: A Review of Evidence in the WHO
12 European Region. *International Journal of Environmental Research and Public Health*, 16(7),
13 1216. <https://doi.org/10.3390/ijerph16071216>
14
- 15 Scmelkes, S. (2020) Recognizing and overcoming inequity in education. United Nations., UN
16 Chronicle. [https://www.un.org/en/un-chronicle/recognizing-and-overcoming-inequity-
17 education](https://www.un.org/en/un-chronicle/recognizing-and-overcoming-inequity-education)
18
- 19 Scottish Swimming (n.d.) National Primary School Swimming Framework. [https://ocs-
20 sport.ams3.cdn.digitaloceanspaces.com/scotswim-
21 full/2024/05/SSW_School_SFW_17.05.24B.pdf](https://ocs-sport.ams3.cdn.digitaloceanspaces.com/scotswim-full/2024/05/SSW_School_SFW_17.05.24B.pdf)
22
- 23 Shields B. (2022) Justice, Equity, Diversity, and Inclusion Curriculum Within an Introductory
24 Bioengineering Course. *Biomed Eng Educ*. 2023;3(1):39-49. doi: 10.1007/s43683-022-
25 00086-z. Epub 2022 Oct 12. PMID: 36254144; PMCID: PMC9555698.
26
- 27 Shteynberg, G., Hirsh, J. B., Garthoff, J., and Bentley, R. A. (2022) Agency and Identity in
28 the Collective Self. *Personality and Social Psychology Review*, 26(1), 35-
29 56. <https://doi.org/10.1177/10888683211065921>
30
- 31 Stodden, D. F., Goodway, J. D., Langendorfer, S. J., Roberton, M. A., Rudisill, M. E., Garcia,
32 C., & Garcia, L. E. (2008) A Developmental Perspective on the Role of Motor Skill
33 Competence in Physical Activity: An Emergent Relationship. *Quest*, 60(2), 290–306.
34 <https://doi.org/10.1080/00336297.2008.10483582> Stricker, P. R. (2002) Sports training
35 issues for the pediatric athlete. *Pediatr Clin North Am*; 49 (4):793–802.
36
- 37 Van Someren, M.W., Barnard, Y.F. and Sandberg, J.A.C. (1994).The Think Aloud Method. A
38 practical guide to modelling cognitive processes. Academic Press, London.
39
- 40 Spratt, J. (2016) Childhood wellbeing: What role for education? *British Educational Research
41 Journal*, 42(2), pp.223–239. <https://doi.org/10.1002/berj.3211>.
42
- 43 Swim England (2017) Swimming for health and wellbeing. Executive summary of the health
44 and wellbeing benefits of swimming report. Commissioned by the Swimming and Health
45 Commission. [https://www.swimming.org/swimengland/health-and-wellbeing-benefits-of-
46 swimming/
47](https://www.swimming.org/swimengland/health-and-wellbeing-benefits-of-swimming/)
48
- 49 Taub, E. et al. (1993) Technique to improve chronic motor deficit after stroke. *Archives of
50 Physical Medicine and Rehabilitation*, 74, pp.347–354. PMID: 8466415.
51
- 52 Tintore, M. (2019) Introducing a model of transformational prosocial leadership. *Journal of
53 Leadership Studies*, 13(3), pp.15–34.
54
- 55 United Nations. (1989) *Convention on the Rights of the Child*. United Nations. Available at:
56 <https://www.ohchr.org/en/instruments-mechanisms/instruments/convention-rights-child>.
57
- 58 Virenque, L., Mossio, M. (2024) What is Agency? A View from Autonomy Theory. *Biol
59 Theory* 19, 11–15. <https://doi.org/10.1007/s13752-023-00441-5>
60

1
2
3 Vygotsky, L.S. ([1934] 1965) *Thought and language*. Edited and translated by Hanfmann, E.
4 and Vakar, G. Cambridge, MA: MIT Press.

5
6 Whitfield G.P., Carlson, S.A., Ussery, E.N, et al. (2015) Racial and ethnic differences in
7 perceived safety barriers to walking, United States National Health Interview Survey - 2015.
8 *Prev Med.* 2018 Sep;114:57-63. doi: 10.1016/j.ypmed.2018.06.003. Epub 2018 Jun 9.
9 PMID: 29894716; PMCID: PMC10886426.

10
11 Whitehead, M. (Ed.). (2010) *Physical Literacy: Throughout the Lifecourse* (1st ed.).
12 Routledge. <https://doi.org/10.4324/9780203881903>

13
14 Winsler, A. (2003) Introduction to special issue: Vygotskian perspectives in early childhood
15 education; Translating ideas into classroom practice. *Early Education & Development*, 14(3),
16 pp.253–270.

17
18 World Health Organization (2024) Physical activity. Key Facts. [Physical activity](#).

19
20 World Health Organization (2021) Tripartite and UNEP support OHHLEP's definition of 'One
21 Health'. Available at: <https://www.un.org/sustainabledevelopment/health/>.

22
23 World Health Organization (2020) WHO Guidelines on Physical Activity and Sedentary
24 Behaviour. [WHO guidelines on physical activity and sedentary behaviour](#).

25
26 Yilmaz, K. F.G. (2019) Exploring the role of Facebook adoption and virtual environment
27 loneliness on knowledge sharing behaviors in a Facebook learning community. *Educ Inf*
28 *Technol* 24, 1699–1714. <https://doi.org/10.1007/s10639-018-09854-3>
29
30
31
32
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35
36
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Alison Murray, University of Stirling

Pamela Murray, University of Worcester

Kristy Howells, Canterbury Christ Church University

Nuzhat Uthmani, University of Stirling

Natasha Mc Millan, University of Strathclyde

For Peer Review