DOI: 10.1111/jep.13833

#### ORIGINAL PAPER



## 'Not always so': Embracing process in the development of curricula for contemporary person-centred healthcare professional education

John Stephens Med, MA, PhD, MCSP

Department of Exercise, Sport & Rehabilitation Therapies, Sciences Complex, Sunderland University, City Campus, Sunderland, UK

#### Correspondence

John Stephens, Med, MA, PhD, MCSP, Department of Exercise, Sport & Rehabilitation Therapies, Sciences Complex, Sunderland University, City Campus, Sunderland SR1 3SD, UK.

Email: john.stephens@sunderland.ac.uk

#### **Abstract**

Contemporary person-centred healthcare and professional education operates within an interconnected and rapidly changing world of challenge and opportunity in the development of curricula that reflect practice. In times characterised by change and uncertainty, with increasing opportunities for networking and collaboration, educational curricula with an emphasis on 'process' rather than a more traditional, mechanistic emphasis on 'product', would seem appropriate in looking towards the future. Learning and emergent professional identity occurs through individuals' social definitions in turn influenced by knowledge and power relationships. The Dialogical Curriculum Framework seeks to promote a more even distribution of knowledge and power through participation and co-production in the pursuit of tolerance and coherence to support learning and identity. The parameters and dynamics of the Dialogical Curriculum Framework are represented through the interconnected relationship between learner attributes, curriculum themes, and curriculum constructs. The processes of space for reflection, open dialogue, participation and symbolic interactionism drive the curriculum, within the context of UK policy and Society. The emphasis on the pursuit of person-centred care makes it important for students to make connections with their own and other professions/ disciplines to reflect the complexities of contemporary healthcare—an understanding of the 'whole', rather than fragmented parts. By way of example, a co-produced module of study within a preregistration MSc Physiotherapy programme is highlighted. Students identify, develop, and design small-group projects working with 'Physiopedia'. Thus, projects hold the potential to contribute to a global educational forum as well as student dialogue for learning.

## KEYWORDS

co-production of learning, curriculum development, healthcare professionals education, process-driven learning

This is an open access article under the terms of the Creative Commons Attribution-NonCommercial-NoDerivs License, which permits use and distribution in any medium, provided the original work is properly cited, the use is non-commercial and no modifications or adaptations are made.

© 2023 The Authors. *Journal of Evaluation in Clinical Practice* published by John Wiley & Sons Ltd.

### 1 | INTRODUCTION

Contemporary Society can be defined as interconnected, complex and characterised by continual change. This provides both challenge and opportunity for the emergent healthcare services across the United Kingdom and beyond, along with the supporting education system to develop the healthcare professionals of the future, today. This article seeks to promote discussion regarding pre- registration educational curricula with an emphasis on 'process' rather than a more traditional focus on 'product' and where learners actively contribute to both process and product. This will be illustrated through reference to a Dialogical Curriculum Framework<sup>1</sup> and highlighted by an example of a co-produced module within a preregistration Physiotherapy programme involving collaboration with 'Physiopedia'.2 Described as Wikipedia for physiotherapy, Physiopedia seeks to share open knowledge, education and research through global collaboration, that is, promote open dialogue on a global scale.

The notion of outcome-driven education is not dismissed, but equal emphasis towards process is argued in understanding that any 'targets' are in constant motion, reflecting rapid, continual change and demands in healthcare education that cannot be fully reflected by outcomes and standards. In adopting the stance of Sinek,<sup>3</sup> albeit in a more focused manner towards education, curriculum design starts with 'why' (a rationale) and 'how' (processes) to inform 'what' (outcome and content) rather than a more traditional approach of 'what' dictating 'how', with often an ambiguous stab at 'why'. Discussion is contextualised within a framework of symbolic interactionism,<sup>4</sup> a concern for the acceptance of symbols as culturally derived social objects that provide the means by which a reality is constructed, aligned with a concern for learning and development that reflects deconstruction<sup>5</sup> rather than fixed meaning.

The NHS Long Term Plan<sup>6</sup> sets out an ambitious national programme aimed at building on the successes of the National Health Service. While acknowledging the challenges surrounding funding, staffing, a growing and ageing population, with increasing inequality across the population, continuing medical advancements and technology hold the potential to provide improving individualised outcomes of care. 7,8 The emphasis on collaborative healthcare with further movement towards prevention and wellbeing should be understood within the context of growth in the workforce supported by expanding diversity in educational provision that includes accelerated M-level programmes, degree apprenticeships, and pre-registration doctorates, alongside BSc (Hons) preregistration awards. An unprecedented and dramatic indication of rapid change has been provided with experiences across all countries affected by the coronavirus global pandemic<sup>9</sup> in terms of change to healthcare provision and the response required in service and staff development. There has been an immediate impact on preregistration healthcare profession education<sup>10,11</sup> at a time when a number of professional bodies have been revising educational standards and curriculum design in the United Kingdom and beyond. 12,13

## 2 | CURRICULUM: PRODUCT, PROCESS AND DIALOGUE FOR A COHERENT WHOLE

The term 'curriculum' is frequently used in relation to planning and policy in the development, delivery and review of programmes of study, yet any definition is often contentious and reliant on local interpretation. 14,15 For many, the curriculum is the content of a particular discipline or subject area and the outcomes to be achieved on completion of study-a product-while for others it also includes elements such as the learner, the approach to learning, and the purpose of learning—a process. 15,16 Pertinent to healthcare professional education, Fotheringham et al.<sup>17</sup> expand on this position in identifying a discipline focused approach that is dominated by professional regulatory requirements and employability (product), but also recognise a more emergent definition within contemporary education that prioritises interaction and community (process) over content and structure. A process driven curriculum holds the potential to a more holistic approach to education that relates not just to what is taught, but also to students and academics experiences and the pedagogical approaches that support this.

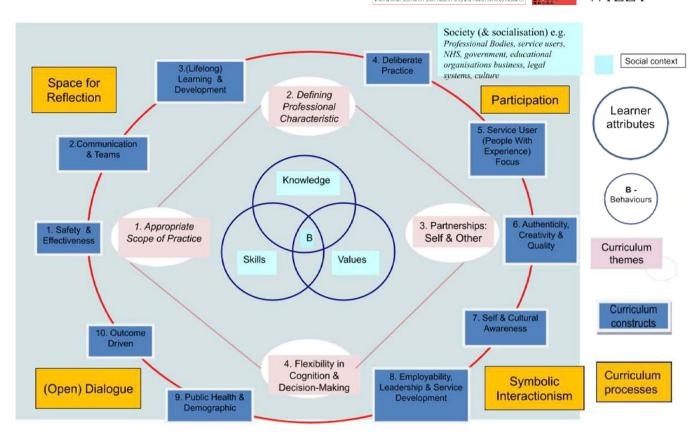
The concept of process-driven activity in the pursuit of standards or goals is not confined to healthcare education.

It was interesting to witness the British swimmer Adam Peaty at the 2018 European Multi-Sport Championships attributing his continued success to engagement with process rather than a direct focus on medals or records (products), <sup>18</sup> that is, clearly focused on 'why' and 'how' to inform 'what' of performance. Indeed, 'Placing focus and attention on processes means you can learn faster, become more successful, and be happier with the outcome'. <sup>18</sup>

To summarise, the increasing diversity and pace of change within complex person-centred healthcare provision that in turn impacts on healthcare professional education warrants further consideration for a different emphasis in the development and design of professional curricula. Meeting the educational needs of contemporary Society, and the individuals within it, necessitates consideration for disequilibrium through constant change and evolution within the curriculum where creativity is potent—education for complexity (Figure 1). Within a Society less reliant on structure and hierarchy, characterised by agency and iteration, things are 'not always so', <sup>19</sup> in a constantly changing and interconnected Society, where rigid structures and standard approaches are becoming less relevant functionally.<sup>20</sup>

Fung <sup>21</sup> calls for a vision of 'well-tuned' education that works on a personal, institutional and Societal level through connectedness. A *Dialogical Curriculum Framework*<sup>1</sup> is offered as a legitimate option to shape curricula. Learning driven by a process of dialogue and enquiry is promoted as a social activity, driven by context within a complex, sociomaterial framework.<sup>22–24</sup> In providing a simplified expression of this complexity four characteristics of a *Dialogical Curriculum Framework* are offered (Box 1).

It is important to understand these characteristics as an enfolded whole, constantly changing and interconnected rather than a series of



**FIGURE 1** The dialogical curriculam framework (adapted from 1).

## BOX 1 Four characteristics of a Dialogical Curriculum Framework

A curriculum which is people-centred; at whatever level we want to view this, it's a construct, organised, delivered by and for people A curriculum which is context-relevant; context (environments, people, resources, policies) drives everything A curriculum which is authentic; informed by evidence across a broad scope, and driven by values
A curriculum which is wise; not just requiring those involved to be intelligent but also to be morally/ethically 'sound', i.e. not just

(cf. Stephens<sup>1</sup>)

competent but capable.

individual fragments.<sup>25</sup> Human activity has a tendency towards division into specialisms, each seemingly separate from the other. Within curriculum design this is commonly reflected in modularisation within taught programmes. Over the past three decades, resultant fragmentation within healthcare profession education and the focus on person-centred care has led to the growth of interprofessional education (IPE).<sup>26</sup> Although intended to unite fragments, IPE arguably carries the threat of merely offering another separate fragment.

Fragmentation can be exacerbated by scientific research in taking the content of our thought 'as is', as an objectively true description of the world. <sup>25,27</sup> As human thought tends to discriminate and classify (through distinction and difference), there is a tendency to habitually look at these as real divisions and the world as broken into parts rather than a coherent whole.

# 3 | 'NOT ALWAYS SO': A DIALOGICAL CURRICULUM FRAMEWORK

Collaborative and cooperative learning has been revitalised and refashioned over the past two decades through continuing advances in technology and burgeoning of multimedia resources and simulation in healthcare professional education.<sup>28,29</sup> The characteristics of 'generation z'<sup>30,31</sup> include qualities such as the ability to multitask, with preferences for networked and collaborative activities that focus on learning from video, images and sound rather than text. However, these qualities also bring challenges in critical thinking, questionable quality control with regard to resources, and limited reflection. Furthermore, movement of tutors' roles away from that of 'sage on the stage' to the 'guide on the side', <sup>32</sup> a much more open and flexible role is recognised.

The concepts of the spiral curriculum<sup>33</sup> and scaffolding,<sup>34</sup> highly prevalent across education, are arguably easier to structure within the 3 year 'full-time' format of undergraduate study than other

3652753. 0, Downloaded from https://onlinelibrary.wiley.com/doi/10.1111/jep.13833 by Test, Wiley Online Library on [07/03/2023]. See the Terms and Conditions (https://onlinelibrary.wiley.com/terms

-and-conditions) on Wiley Online Library for rules of use; OA articles are governed by the applicable Creative Commons License

available preregistration programmes such as 2-year accelerated M-Level programmes, and Degree Apprenticeships, some of which can be of 18 months duration due to advanced standing through recognised prior learning mechanisms. Anecdotally, the challenges of fitting 'everything' into preregistration education has been a point for discussion across a number of years, highlighting the importance and challenges offered by the null curriculum<sup>35</sup>; content selected to be omitted from a curriculum. Therefore, there would appear to be an opportunity to consider more integrated approaches to learning driven by collaborative enquiry, that place greater emphasis on students' previous learning, life experience and transferable skills across the curriculum.

## 3.1 | A philosophical position

Within curriculum planning and design it is important to understand the purpose of a programme based on changing societal need as well as the structure of regulatory body requirements, to start with 'why' rather than 'what'. In reviewing resources for programme delivery, feedback from stakeholder consultation, and information required for successful approval it is a logical step to agree on an educational philosophy for the curriculum; to establish the 'why' and 'how' of learning and promote a coherent 'whole' for the programme. It is valuable to know 'why' you to do 'what' you do to guide the values and principles ('how') of the curriculum and in turn enable a consistent and authentic product ('what') where change becomes the fabric of learning and development.

The *Dialogical Curriculum Framework*<sup>1</sup> should be understood as an interconnected, constantly changing 'whole', the existence of which is brought into being by those who engage with its processes. From a broad perspective, education, learning and emergent (professional) identity is proposed as a social phenomenon, continually interpreted and re-interpreted from a position of liquidity and complexity.<sup>36</sup>

The philosophical position offered by symbolic interactionism<sup>4</sup> is based on the belief of people's selves as social products that are purposive and creative.<sup>37</sup> In this case purposive towards the fulfilment of criteria for the award of a preregistration academic award and professional registration. Three central premises of symbolic interactionism are summarised in Box 2.

Thus, symbolic interactionism presents an illustration of human life in action through social interaction. For a curriculum to be legitimate, it must be consistent with the nature of social action of healthcare professionals. The complexity of ongoing action establishes structure and organisation of the profession, fitting together the activities of its members. Within physiotherapy for example, Standards of Proficiency for Physiotherapists<sup>38</sup> and a Framework for Physiotherapy,<sup>39</sup> arise from and inform the role and purpose of physiotherapy and the associated Standards of Education and Training,<sup>40</sup> the identity and role of physiotherapy education. Blumer<sup>4</sup> argues social interaction as a medium through which to pass to a particular set of behaviours. For the *Dialogical Curriculum Framework* presented here (Figure 2), symbolic interactionism functions as a

## BOX 2 Three central premises of symbolic interactionism

- Humans act towards 'things' dependent on the meanings 'things' have for them
- 2. Meanings arise from social interaction
- Meanings are handled and modified through an interpretive process by the person(s) interacting with 'things'. (cf. Blumer<sup>4</sup>)

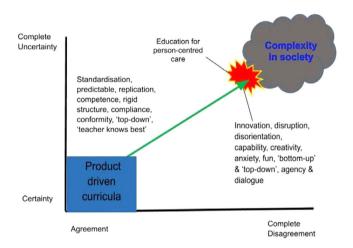


FIGURE 2 Education for complexity (adapted from 1).

process that FORMS human behaviour rather than merely the means to release behaviour.

## 3.2 | The Dialogical Curriculum Framework

The Dialogical Curriculum Framework is defined as a predominantly process-driven curriculum framework, a feature of which is the role of space for reflection, open dialogue, and participation. It is presented as an overview or 'skeleton' of interconnected items in Figure 2 and serves as a guide that can be modified as required.<sup>1</sup>

An essential aspect of open dialogue is that participants suspend immediate action or judgement to give themselves and others the opportunity to become aware of the thought process itself, viz space for reflection to move to a new position of understanding and development. This should not be confused with negotiation, a process that lends to compromise, an outcome that nobody really wants, and the risk of fragmentation of ideas and the possible unwitting promotion of intolerance.<sup>25</sup>

In promoting space and time for dialogue is to understand that there is no unique truth nor any predetermined inherent

FIGURE 3 Thinking, dialogue and behaviour; getting the 'whole' picture (adapted from<sup>1</sup>).

professional identity totally underpinned by reductionist competencies. The purpose of space for reflection and participation (a willingness to be involved with confidence and without fear of not being accepted) is to support a 'bottom up' dialogue, rather than acquiesce to 'top down' authority, an attempt to move away from a reactive model of learning, towards a model of learning that is always aware of 'the whole' to promote action that serves 'the whole' '41,42 (Figure 3). Reactive learning reflects a 'top down' teacher and competency driven approach to learning merely concerned with technical knowledge and skills, limited in depth, contextual awareness and understanding of professional identity, highly structured and rooted in certainty and *stasis*.

The dynamics of the *Dialogical Curriculum Framework* are represented through the interdependent relationship between 4 learner attributes, 4 curriculum themes, and 10 curriculum constructs. The processes of space for reflection, open dialogue, participation and symbolic interactionism drive the curriculum, within the context of UK policy and Society. The emphasis on the pursuit of person-centred care makes it important for students to make connections with their own and other 'stakeholders' reflective of the complexities of contemporary healthcare—an understanding of the 'whole', rather than fragmented parts. A comprehensive explanation is presented by Stephens, <sup>1</sup> where 'curriculum' themes and constructs are referred to as 'Professional Learning' themes and constructs.

The blue background represents Society, 'British culture' in terms of the political, social, economic, and educational landscape. Although not entirely prescriptive in terms of subject content, Professional Statutory Regulatory Bodies (PSRBs) and Professional Bodies publish standards to be met through programme and module learning outcomes indicative of power-knowledge, <sup>43</sup> arguably benevolent in support of public safety, yet also hierarchical in terms of surveillance. Indeed, 'It is not the activity of the subject of knowledge that

produces a corpus of knowledge, useful or resistant to power, but power-knowledge, the processes and struggles that traverse it and which it is made up, that determines the forms and possible domains of knowledge'. (Foucault<sup>43</sup>).

The attributes not only represent a point for 'emergence'44 in a complex process articulated within PSRB standards, but also a point of arrival for learners (and arguably all stakeholders in the educational process), in recognising that they enter professional education with a set of behaviours, skills, knowledge, and values that continuously change to reflect learning and development. The curriculum constructs indicate key thematic areas for contemporary practice (largely policy and profession driven) to shape the curriculum, in turn influenced by curriculum themes, systems<sup>23</sup> that integrate characteristics of the profession and the educational approach (e.g., enquiry-based learning). The curriculum themes function to link learner attributes and curriculum constructs in a dynamic and constantly changing process in the emergence of learning and identity through participation, open dialogue, space for reflection, within a philosophy based around symbolic interactionism.

In brief, the *curriculum themes* are broadly based around the standards of proficiency (or equivalent) for a profession (Scope of Practice), the defining characteristic of the profession (e.g., compassionate care [nursing], movement [physiotherapy], occupation [occupational therapy], peri-operative care [operating department practitioners]), the ability to share information and ideas with a range of people, through a variety of media (partnerships; self and others), and understanding cognition and skills of decision-making, a key attribute of an interconnected/autonomous professional (Flexibility in Cognition and Decision-Making). See Table 1 *Curriculum Constructs*, for an overview of the 10 constructs.

Using the Framework as a 'road map', elements of the curriculum constructs can be highlighted to form the focus for delivery of each module across and between levels. For example; an early-stage practical skills-based module may focus on safety & effectiveness; deliberate practice; authenticity, creativity & quality, but also signpost the seven remaining constructs and their articulation at other modules. The relationship with the curriculum themes, and the essential perspective of the learner attributes, seeks to promote open dialogue and the role of staff as the 'guide on the side' in the development of learning based on enquiry.

The processes of open dialogue, space for reflection, and participation based within a philosophical position of symbolic interactionism, seeks to exploit the gaps between a structuralist, product-driven curriculum, and everything that cannot be accounted for in structuralist terms; for example, individualised, person-centred care. Structure is accepted as a mechanism for truth though not as a 'truth structure', but related to 'truth claims', any meaning for which does not arise outside of language<sup>5</sup> and behaviour. As Wittgenstein argues: 'The limits of my language are the limits of my mind. All I know is what I have words for'. 45

**TABLE 1** Curriculum constructs (adapted from 1).

Curriculum construct	Characteristics
1. Safety and effectiveness	A foundation of competence, the ability to benefit and not harm self or others
2. Communication and teams	The development of intelligence in team working and communication with others across a broad range of levels via a broad range of media
3. (Lifelong) learning and development	A commitment to participation in learning, recognising the continually changing contexts for clinical practice and a journey towards 'expertise'
4. Deliberate practice	Strongly associated with 'expert' practice, that places value on repetition and reflection in the development of skills
5. Service user (people with experience [PWE]) focus	A commitment to person-centred, individualised care
6. Authenticity, creativity and quality	Evidence-based practice that draws on formal and informal knowledge to inform complex, person-centred decision-making which lies at the heart of sound healthcare practice
7. Self and cultural awareness	The ongoing development of self-identity as a healthcare professional, which is always related to others
8. Employability, leadership and service development	A commitment to influencing the activities of individuals or an organised group in its efforts towards goal setting and goal achievement in continuous improvement
9. Public health and demographic	The broad context for professional practice, in understanding public, professional and political expectation and range of influences on this, for example, ageing population, technological advances, national and global politics and economy
10. Outcome driven	Purposeful physiotherapy that is person-focused and driven by mutual goal setting

### 4 | DISCUSSION

To illustrate, a brief overview of a module delivered within a preregistration MSc Physiotherapy programme is provided. The module is the final taught module within the programme and is coproduced with students and framed primarily by the *curriculum constructs* linked to (lifelong) learning and development; employability, leadership and service development, communication and teams; authenticity, creativity and quality. Students are provided with the opportunity to investigate a contemporary area of physiotherapy practice (of their own choosing) within a general theme of innovation, service and/or professional development and to develop a Physiopedia resource to support this. Two existing module learning outcomes, one of which is related to identifying learning relevant to contemporary practice are supplemented by three co-produced learning outcomes.

Students identified, designed, and developed small-group projects working with 'Physiopedia',<sup>2</sup> with a potential to contribute to a global educational dialogue as well as 'local' student dialogue for learning. Agreed projects were developed following a series of facilitated workshops linked to a range of physiotherapy service contexts (e.g., NHS, Charities, Private Practice) and open discussions with individual physiotherapists exploring their current role, career path to date, and future aspirations in relation to the continuing development of the physiotherapy profession within contemporary healthcare.

Four small groups (20 students in total) developed 'Physiopedia' projects, which can be found at Physiopedia.<sup>46</sup> To reflect agreed learning outcomes a 30-min individual presentation supported by

visual aids followed by a 10-min discussion in relation to the 'product' (the project) and also the 'process' of its development was undertaken. Although the task was initially viewed with ambiguity (the challenges of free choice!), students enjoyed and valued their experience as contributing to learning and development. Ideas and activity initially known to very few people became (potentially) available to a much wider audience for discussion.

## 5 | CONCLUSION

In conclusion, there are 'rules', so that completely open curricula devoid of learning outcomes (products) are highly unlikely to gain approval. It is necessary to reflect regulatory body standards of proficiency within programme (and module) learning outcomes. However, although a form of 'order' is required within curriculum design, it should be understood that while attachment to order can satisfy a need for security this becomes problematic if resulting in fixed programmes of thought that prevent creative activities necessary to meet the needs of both present and future healthcare profession educational needs. Opportunity presents within the Dialogical Curriculum Framework through deconstruction of the 'rules' to form curriculum themes and constructs around which to base enquiry, driven by dialogue and space for reflection involving a community of learners

All healthcare professional students, irrespective of background and level of preregistration study, enter their profession with a range of knowledge, skills, values and behaviours, a basis on which to shape learning and professional identity. Professional

education that is participatory in nature and that involves coproduction of learning<sup>47</sup> holds potential for personal and professional development at the edge of complexity.<sup>20</sup> The *Dialogical Curriculum Framework* functions to shape process-driven learning with opportunities to engage with tasks, problems and contexts, to be creative in sharing perceptions, questions and assumptions, and accept a collaborative responsibility in the development of knowledge and skills, influenced by values to inform behaviours; to start with 'why' and 'how' rather than 'what':

When we communicate from the outside in, when we communicate WHAT we do first, yes, people can understand vast amounts of complicated information, like facts and figures, but it does not drive behaviour. But when we communicate from the inside out... (starting with WHY)... we're talking directly to the part of the brain that controls decision-making....<sup>3</sup>

#### CONFLICT OF INTEREST STATEMENT

The author declares no conflict of interest.

### DATA AVAILABILITY STATEMENT

NA.

### REFERENCES

- Stephens J. 'Hasten slowly, you will soon arrive': space, dialogue and participation in support of a Dialogical Curriculum Framework. 2019. https://ethos.bl.uk/OrderDetails.do?uin=uk.bl.ethos.772286
- 2. Physiopedia. Physiopedia. 2020. https://www.physio-pedia.com/home/
- 3. Sinek S. Start With Why. Penguin Business; 2019.
- 4. Blumer H. Symbolic Interactionism. Perspective and Method. Prentice Hall; 1969.
- 5. Derrida J. Of Grammatology. John Hopkins University Press; 1997.
- NHS England. NHS long terms plan. 2019. Accessed February 21, 2023. https://www.longtermplan.nhs.uk/
- NHS England. Next steps on the five year forward view. 2017. Accessed February 21, 2023. https://www.england.nhs.uk/wp-content/uploads/2017/03/NEXT-STEPS-ON-THE-NHS-FIVE-YEAR-FORWARD-VIEW.pdf
- NHS England. The five year forward view. 2014. Accessed February 21, 2023. https://www.england.nhs.uk/wp-content/uploads/2014/ 10/5yfv-web.pdf
- WHO. Coronavirus. 2020. Accessed February 21, 2023. https:// www.who.int/health-topics/coronavirus#tab=tab\_1
- NMC. NMC response to the Covid-19 emergency. 2020. Accessed February 21, 2023. https://www.nmc.org.uk/globalassets/site documents/councilpapersanddocuments/council-2020/item-6-nmcresponse-to-the-covid-19-emergency.pdf
- NHS. Allied Health Professions student support guidance during COVID-19 outbreak. 2020. Accessed February 21, 2023. https:// www.hee.nhs.uk/sites/default/files/documents/AHP%20student%20 support%20guide%20Covid-19.pdf
- NMC. Standards framework for nursing and midwifery education. 2019. Accessed February 21, 2023. https://www.nmc.org.uk/standards-for-education-and-training/standards-framework-for-nursing-and-midwifery-education/

- World Confederation for Physical Therapy (WCPT). Policy statement: education. 2020. Accessed February 21, 2023. https://www.wcpt.org/policy/ps-education
- Ornstein A, Hunkins F. Curriculum Design. In Curriculum Foundations, Principles, and Issues. 5th ed. Pearson/Allyn and Bacon; 2009:181-206.
- 15. Fraser SP, Bosanquet AM. The curriculum? That's just a unit outline isn't it? *Studies in Higher Education*. 2006;31(3):269-284.
- O'Neil G. Curriculum design in higher education: theory to practice.
   http://www.ucd.ie/t4cms/UCDTLP0068.pdf
- Fotheringham J, Strickland K, Aitchison K. Curriculum: Directions, decisions and debate. 2012; QAA. http://www.enhancementthemes.ac.uk/docs/ publications/curriculum-directions-decisions-and-debate.pdf
- Davis H. Peaty, process and project 56. 2018. https://www. thinkbelieveperform.co.uk/peaty-process-and-project-56
- 19. Suzuki S. Not Always So. Harper Collins; 2003.
- Bevan H. Leading change into the future. HEA annual conference, University of Manchester, 4th July 2017. 2017. https://www.slideshare.net/HelenBevan/leading-change-into-the-future-80193935
- Fung D. A connected curriculum for higher education. UCL Press.
   2017. https://www.ucl.ac.uk/ucl-press/browse-books/a-connected-curriculum-for-higher-education
- Mulcahy D. Thinking teacher professional learning performatively: a sociomaterial account. J Educ Work. 2012;25(1):121-139.
- Davis B, Sumara D. The death and life of great education ideas: why we might want to avoid a critical complexity theory. J Can Assoc Curric Stud. 2008;6(1):163-176.
- Haggis T. 'Knowledge must be contextual': some possible implications of complexity and dynamic systems theories for educational research. Educ Philos Theory. 2008;40(1):158-176.
- 25. Bohm D. Wholeness and the Implicate Order. Routledge; 2007.
- 26. CAIPE. About us. 2018. https://www.caipe.org/about-us.
- 27. Bohm D, Peat FD. Science, Order and Creativity. Routledge; 2000.
- Mason R, Rennie F. Elearning and Social Networking Handbook. Resources for Higher Education. Routledge; 2008.
- Mohr KA, Mohr ES. Understanding generation Z students to promote a contemporary learning environment. J Empower Teach Excell. 2017; 1(1):9. doi:10.15142/T3M05
- Chicca J, Shellenbarger T. Connecting with generation z: approaches in nursing education. *Teach Learn Nurs*. 2018;13(3):180-184.
- Shatto B. Moving on from millenials: preparing for generation z. J Contin Educ Nurs. 2016;47(6):253-254.
- Fox S. An actor-network critique of community in higher education: implications for networked learning. Stud High Educ. 2005;30(1):95-110.
- Johnston H. The Spiral Curriculum Education Partnerships Inc. 2012. https://files.eric.ed.gov/fulltext/ED538282.pdf.
- Pea RD. The social and technological dimensions of scaffolding and related theoretical concepts for learning, education, and human activity. J Learn Sci. 2004;13(3):423-451.
- 35. Eisner E. The Educational Imagination. Macmillan; 1985.
- 36. Bauman Z. Identity. Wiley; 2010.
- 37. Mead GH. Mind, Self, & Society From the Standpoint of a Social Behaviourist Chicago. University of Chicago Press; 1992.
- Health and Care Professions Council. Standards of proficiency physiotherapists. 2013. https://www.hcpc-uk.org/globalassets/ resources/standards/standards-of-proficiency—physiotherapists.pdf? v=637106257580000000
- Chartered Society of Physiotherapy (CSP). CSP physiotherapy framework. 2013. https://v3.pebblepad.co.uk/v3portfolio/csp/ Asset/View/6jqbh3GzhGWrrcGqpknwmZzh8Z
- Health and Care Professions Council. Standards of education and training London: HCPC. 2014. http://www.hcpc-uk.org/Assets/ documents/10005495SETs2014.pdf

- 41. Kahneman D. Thinking, Fast and Slow. Penguin Books; 2012.
- 42. Senge PM, Scharmer CO, Jaworski J, Flowers BS. Presence: Exploring Profound Change in People, Organizations and Society. Nicholas Brealey Publishing; 2010.
- 43. Foucault M. Discipline and Punish; The Birth of the Prison. Penguin; 1991.
- 44. Byrne D. Complexity Science and the Social Sciences. An Introduction. Routledge; 2005.
- 45. Byrne D. Bicycle Diaries. Faber & Faber; 2010.
- Physiopedia. Northumbria university innovation and contemporary physiotherapy project. 2019. https://www.physio-pedia.com/Northumbria\_University\_Innovation\_and\_Contemporary\_Physiotherapy\_Project
- 47. Edwards R. Knowledge infrastructures and the inscrutability of openness in education. *Learn Media Technol.* 2015;40(3): 251-264.

How to cite this article: Stephens J. 'Not always so': embracing process in the development of curricula for contemporary person-centred healthcare professional education. *J Eval Clin Pract*. 2023;1-8. doi:10.1111/jep.13833