

Towards a theory of pedagogy for coproduction: Rethinking the role of learning in contributing to health, wellness and success in life

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In the past decade or so our fundamental understanding of how healthcare and education service work has changed significantly at the same time as the fields of improvement science in health and learning sciences in education have begun to be more widely recognised, valued and used (Batalden and Davidoff, 2007; Bryk et al, 2015).

We increasingly see health as a coproduced service with the wider goals of patients as its driving force rather than a product 'made' by experts (Batalden, 2018). At the same time we see education as developing the wider habits of mind and dispositions needed by students for a lifetime of learning in the real world rather solely the knowledge and skills to pass the next test as well as shift towards student ownership of the learning process (Lucas, Claxton and Spencer, 2013).

While these generalisations necessarily oversimplify, there is considerable truth at their heart. As a consequence of such worldviews, pedagogy - typically defined along the lines of 'the science, art and craft of teaching' - is seen as something which teachers 'own' and use with pupils or, in the health context, experts own and use in the initial or continuing professional formation of novice healthcare workers.

But fundamental shifts in our understanding of healthcare and education require an equally transformative leap in our understanding of pedagogy.

If most of healthcare and much of schooling is actually about building a holistic learning relationship between patient/student and relevant professional to take actions to better realise mutually desired outcomes, then pedagogy becomes the means by which these outcomes are realised. Pedagogy in a world of coproduced service can be seen as a treasure trove of useful learning habits and methods equally accessible to patient or healthworker, student or teacher. Pedagogy is redefined as a means of fostering the vitality by which learning is brought to life in order to help us live more healthily, more well and achieving more of whatever counts as success for us.

But first a definition and a model of coproduction. Coproduction is the

...interdependent work of users and professionals who are creating, designing, producing, delivering, assessing, and evaluating the relationships and actions that contribute to the health of individuals and populations. At its core are the interactions of patients and professionals in different roles and degrees of shared work. On an individual level, according to this model, a healthcare service is usually composed of a relationship and an action. (Batalden, 2018.)

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Paul Batalden, who has been influential in leading the shift in healthcare towards a service dominant mindset, helpfully depicts coproduced healthcare service as informed by three streams of knowledge forming a three-coloured braid, Figure 1.²

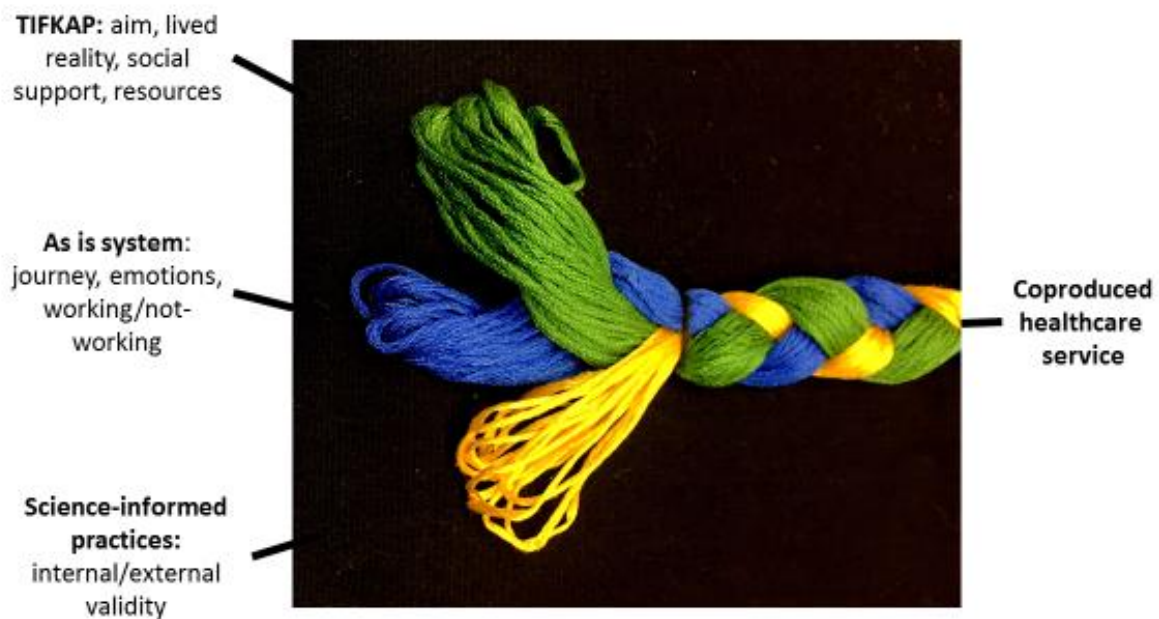


Figure 1 – An image of coproduced healthcare, Batalden (2018)

In this model TIFKAP (the individual formerly known as patient) brings insight into that person’s aim for their own health, their lived reality and resources and their supports available for the shared work of service coproduction. A second stream of contributing knowledge comes from an understanding of the “as is” system and the way it works or doesn’t as the persons we sometimes call patients engage the reality and associated emotions of their journey within that system. The third knowledge stream comes from science-informed study of the effectiveness of possible interventions which might be part of the design of service and its measurement, including assessments of both internal and external validity of those studies.

With these verbal and visual depictions of coproduction in mind, what might a changed role for pedagogy be? What are the key learning processes at work? Are there some signature pedagogies and useful learning methods which could help us better to coproduce services?

The International Coproduction Health Network (ICoHN) has started to think about a different kind of learning journey for those engaged as healthcare system leaders in coproduced healthcare, Figure 2:

² I am enormously in the debt of Paul Batalden for the many conversations we have had during the thinking about and writing of this paper.

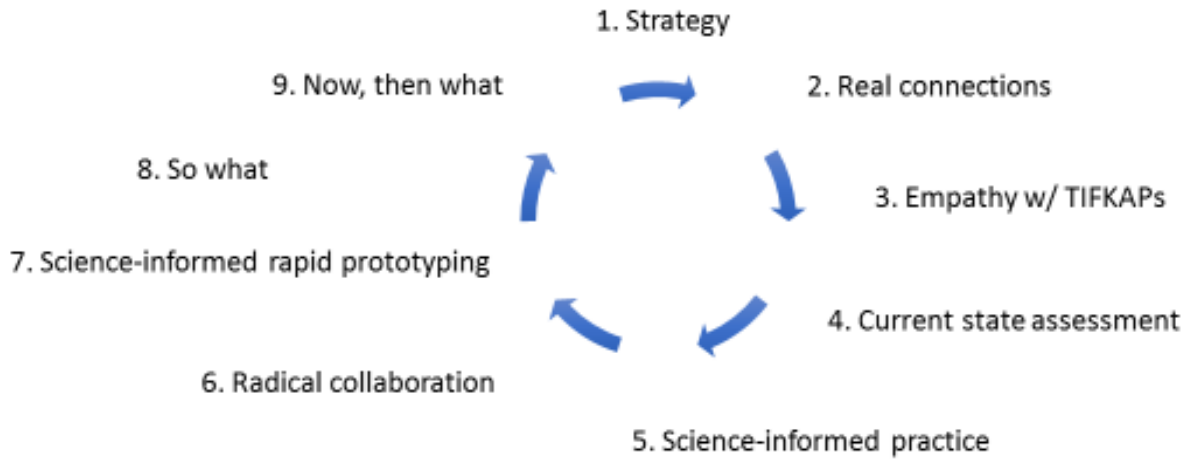


Figure 2 – A Learning Journey for coproduced healthcare, ICoHN (in press)

The ICoHN cycle is essentially the experiential learning cycle developed by David Kolb (1984), see Figure 3, with an expanded set of initial steps designed to bring empathy to understand the perspective of the TIFKAP, the current state of the ‘as is’ system and the possible contributions of science-informed practice with a more elaborated stock-taking session at the end of the process:

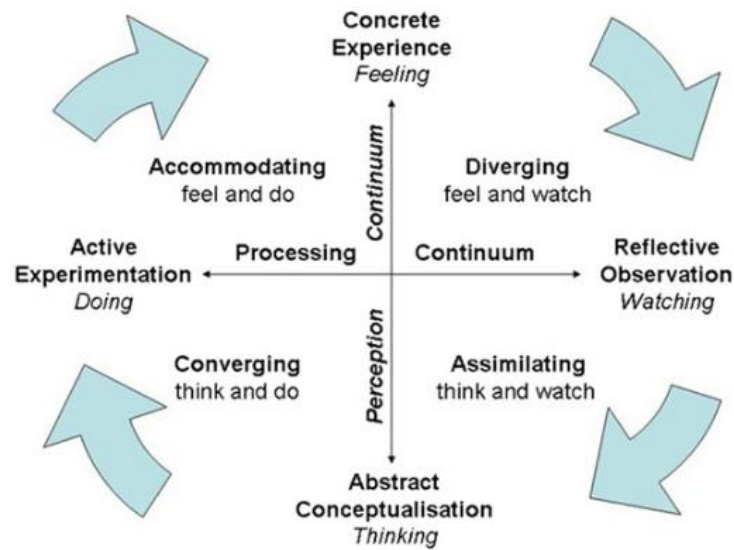


Figure 3 – Kolb's experiential learning cycle

The over-arching approach to learning in coproduction is social constructivism, the idea that people actively construct their understanding of the world based on their own experiences and that most substantive learning depends on interaction with others (Dewey, 1897; Vygotsky, 1978; Bruner, 1996).

The learning processes of coproduction

Each step of the ICoHN model begs questions about the learning processes involved.

(1) How is a service-making approach fundamentally different from ‘delivering’ healthcare or education as if it were a product? What will each party need to learn to be able to be effective?

(2) Given that all service is in some way coproduced—what are the ways that the roles of persons sometimes known as ‘patient’ and ‘professional’ change in acute, long-term, preventive, and palliative care situations? How are connections different when dealing with a novice as opposed to someone who has considerable experience?

(3) How can professionals best empathise with individuals who may not be technical experts but are very knowledgeable about their own health or learning ambitions and their resources/supports? What kinds of methods tend to promote the development of empathic relationships?

(4) A clinician classically ‘takes their patient’s *history*’, but what if a TIFKAP and his or her health professional ‘co-create the TIFKAP’s *future*’? How might the questioning be different? What listening techniques might lead to a better assessment of the TIFKAP’s current state?

(5) How will those in the health and learning relationship access the science in a way and at a time that works for them both? How might measurement be most helpful in the design and reflection on the interdependent work done?

(6) What habits of mind will be most important if ‘patient’ and ‘professional’ are to be fully present and actively engaged in interdependent work (Lucas, 2015)? What long-held beliefs may need to be set on one side? What new roles will they need to play and what learning will they need to be able to play these effectively?

(7) Given that one person’s prototype may be another person’s setback, how will both participants develop the kind of ‘growth mindset’ (Dweck, 2006) necessary to persevere in the face of adversity? What is the role of a ‘shared’ aim?

(8) How will both parties find methods of taking stock which honour the TIFKAP’s wider goals with the available science and the reality of available resources? How will both become better noticers?

(9) How will both parties recalibrate their joint endeavours to ensure continued progress towards better health, wellness and learning?

Co-production's signature pedagogies

In thinking about a theory of pedagogy for coproduction there is an idea which is potentially useful - signature pedagogy. First coined by Lee Shulman in 2005, signature pedagogy was originally used to describe the types of teaching and learning which most suit or match the characteristics of a specific profession:

Signature pedagogies make a difference. They form habits of the mind, habits of the heart and habits of the hand...signature pedagogies prefigure the cultures of professional work and provide the early socialization into the practices and values of a field.

A signature pedagogy is the blend of learning methods most conducive to producing a certain desired outcome. The idea can, for example, be applied to the education of engineers (Lucas, Hanson and Claxton, 2014) or to the teaching of creative thinking (Lucas and Spencer, 2017). A signature pedagogy describes the set of learning methods which have the essence of the desired outcome, the cultures, practices and values of engineers and creative thinkers, for example, within them. For engineering this involves a blend of design processes, tinkering and authentic work with engineers. To generate creative thinkers this would seem to be a blend of approaches such as problem-based learning, deliberate practise and playful experimentation.

So what might the signature pedagogies of coproduction be? Might they be helpful ways of framing our thinking about the kinds of learning which may be most helpful?

To answer this it will help if we revisit the nine questions above and begin to sketch in some tentative answers about the nature of coproduced healthcare and its potential implications for learning:

- (1) Coproduced care is fundamentally about a different kind of talking and listening to achieve holistic outcomes, something which for many will require a shift of mindset.
- (2) The connections between TIFKAP and health professional will be very different according to a number of contextual factors; learning how to anticipate/recognise certain kinds of likely context will be important while at the same time being able to recognise individual preferences which defy predicted behaviours. The actions of the actors involved, for example, will vary with the context, the urgency of action and the systems of support.
- (3) The requirement for active empathy and the necessarily gentle and iterative clarifying questions to build a different kind of relationship will be a large step for many used to adopting positions associated with their role, often understood as 'product-maker.'
- (4) Learning to get a jointly agreed 'fix' on the current state of a system - its reliability, its waste & failures - as well as understanding the supports and resources that a TIFKAP needs in the light of his or her longer-term plans and dreams is necessarily complex.

(5) Except for those with long-term conditions who have become scientifically expert, it is normally the health professional who can speak with the confidence born of generalisable medical evidence. By the same token the TIFKAP is, in many ways, the ‘scientific expert’ on matters to do with their own health/body. With the internet and with the advent of citizen science, all of this is evolving. Learning to strike the right balance between clinical experience and knowledge and the desirability of evidence-based conversations requires practice, (Greenhalgh, 2018).

(6) Coproduction is a special kind of collaboration, more tentative, and iterative than role-driven and transactional; it requires participants to learn different modes of inquiry, rhythms and speech cadences. These new roles will need to be practised in different contexts.

(7) While science may drive the prototyping of an evolving care strategy, it will be certain mindsets that are needed to deal with setbacks. The emphasis will need to be on understanding why certain approaches or treatments work or do not work. There will need to be strategies for developing a growth mindset in TIFKAP and, for the healthcare professional, on ways of feeding back on results which encourage growth.

(8) The ‘so what’ reflections will necessarily have at least two dimensions, the ‘medical-scientific’ and the ‘personal-holistic’. Learning how to calibrate the respective value and importance of these will require complex decision-making skills of the highest order.

(9) The ‘now what’ collaborative decision-taking processes will be novel for many and will need to be learned and practised, inviting attention to continual redesign.

Three signature pedagogies for coproduction

With these answers in mind and thinking about the cultures, practices and values of coproduction it may be helpful to think about three signature pedagogies and their associated learning methods, see Figure 4.

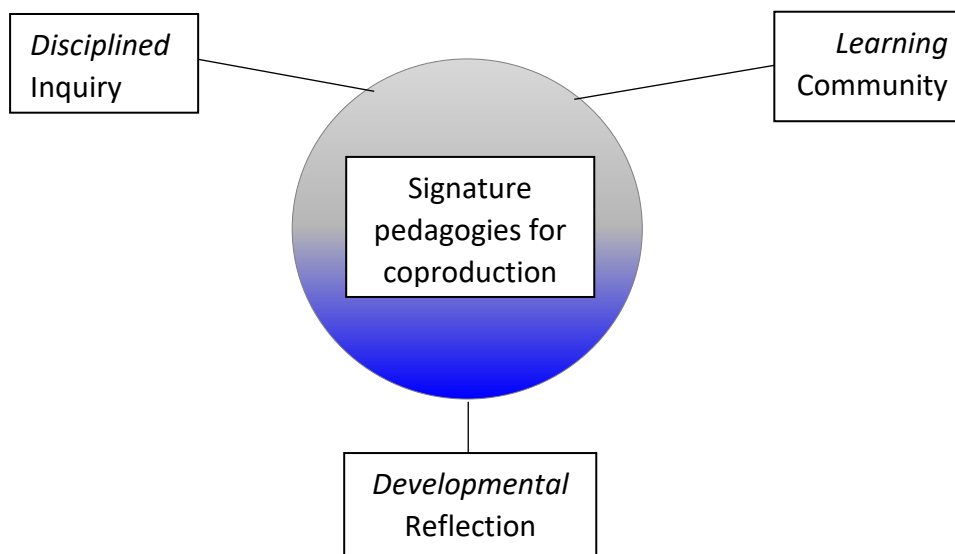


Figure 4 – Three signature pedagogies for coproduction

These clusters of learning methods are intended to be illustrative and invitational only, not in any way prescriptive.

There will inevitably be areas of overlap between these three clusters of pedagogies. Reflection, for example, is an essential component of any disciplined inquiry; Inquiring is what learning communities tend to do; the people who make up communities are a source of many reflective insights. Nevertheless the focus on three broad areas helps us to think expansively about the nature of the learning needed for coproduction.

The italicised word in the description of each of the three signature pedagogies acts to sharpen the focus of the activity. Enquiries are *structured and focused*, the primary focus of TIFKAP communities is on *the extraction of learning from experiences*, and the reflection undertaken has *an explicitly developmental emphasis* for all parties involved.

In thinking about the learning needed to generate the kinds of TIFKAP-healthcare professional dispositions needed for the relationship to flourish it is helpful to think about the kinds of habits they will need needed along with their associated skills and knowledge. For many educators thinking about pedagogy starts with a focus on knowledge, then considers skills and only occasionally considers what it takes to for capabilities to be routinely deployed as habits/dispositions. Figure 5 describes these interdependencies graphically:

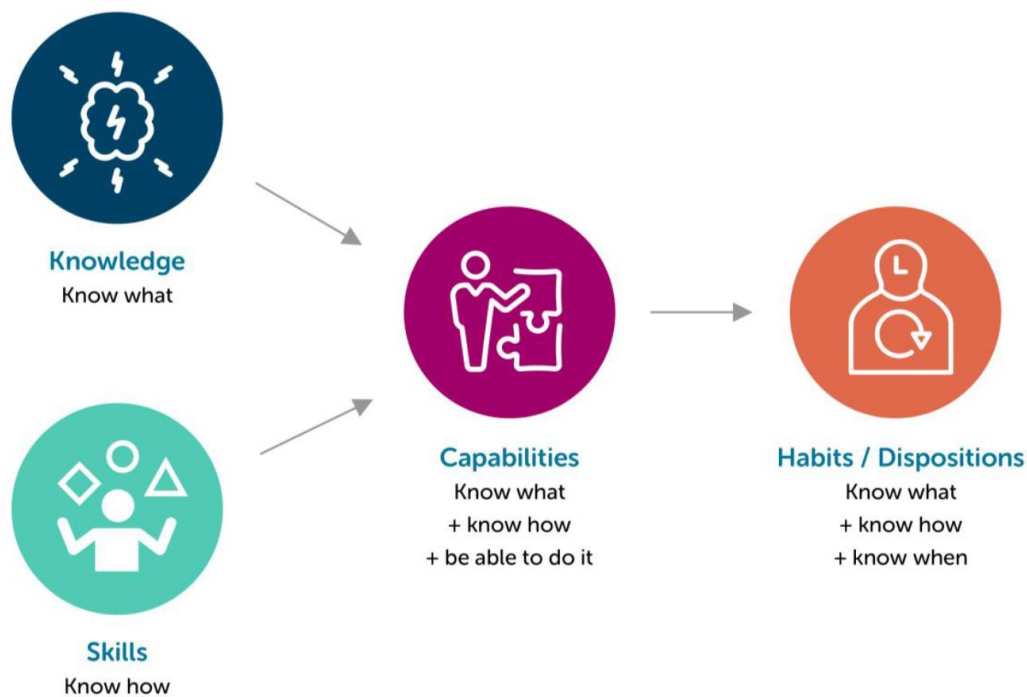


Figure 5 - The relationship between knowledge, skills, capabilities and habits (Lucas, 2018)

A number of habits seen to straddle all three signature pedagogies, including imagination, curiosity, generosity of spirit, openness to experiences, optimism and resilience.

Disciplined inquiry

Disciplined inquiry is the expression of curiosity and inquisitiveness over time using processes which are disciplined in two senses - that they follow a process akin to action research or action learning and that they use evidence to investigate and notice the impact of lifestyle or treatment decisions. The concept of disciplined enquiry as applied to an individual's exploration, with support, of their own health, wellbeing and future plans, draws on a wide literature including goal-setting (Locke and Latham, 2002), design thinking (Roberts et al, 2016), problem-based learning (Clouston et al., 2010; Savery and Duffy, 1995), action learning (Meyer, 2001), action research and embodied cognition (Claxton, 2016).

Key skills associated with disciplined enquiry include:

- Goal-setting
- Clarifying ideas
- Question framing
- Generating possible solutions
- Web searching
- Reading and understanding new disciplines
- Prototyping
- Noticing
- Understanding data
- Integrating thoughts and feelings, mind and body.

The knowledge needed includes understanding how to focus, research and plan a course of action, how to put this into action, how to notice the impact of any new plans and how to modify a course of action accordingly.

Disciplined inquiry as a pedagogy is a process broadly similar to the Plan-Do-Study-Act cycle widely used in healthcare improvement, Figure 5, with:



Figure 6 – The Plan-Do-Study-Act cycle

Disciplined enquiry as a signature pedagogy is fundamentally a combination of experiential learning and coaching-style feedback.

Learning community

Learning community is a concept which reminds us that, while necessarily individual, we are potentially connected to many others physically and virtually, in real time and, thanks to technology, asynchronously.

The concept of learning community as applied to an individual's exploration, with support, of their own health, wellbeing and future plans, draws on a wide literature including the ideas of communities of practice (Lave and Wenger, 1991) professional learning communities (Stoll et al., 2006) apprenticeship learning (Lucas and Spencer, 2015) online learning (Beetham and Sharpe, 2013), deliberate practice (Ericsson and Pool, 2016) and citizen science (Parks, d'Angelo and Gunashekar, 2018).

Key skills associated with effective membership of any learning community include:

- Observing
- Active listening
- Questioning
- Empathising
- Information management
- Decision-making
- Practising
- Resource optimisation
- Peer coaching
- Collaborating
- Networking.

The knowledge needed to be an effective member of a learning community concerns an understanding of how people interact, how they acquire and share expertise with others at different stages of their development, how to get maximum benefit from online learning and an understanding of how networks function.

Learning community as a signature pedagogy is fundamentally an act of social learning, observing, listening, questioning all the while being able to extract the learning from experiences. In some cases, where prior practice is helpful, these habits and skills may best be learned through role play and simulation.

Developmental reflection

Developmental reflection involves careful tracking of actions, events, thoughts and feelings with a view to harvesting the learning from them.

Developmental reflection draws on a number of literatures including the idea of developmental evaluation created by Michael Quinn Patton (2010), growth mindset (Dweck, 2006; Dweck et al., 2011), and an idea from education, Assessment for Learning (William,

2006). At a more detailed some specific techniques such as storytelling (Deniston-Trochta, 2003) and visualisation (Klerkx, Verbert and Duval 2014) may be helpful.

Key skills associated with developmental reflection include:

- Story-telling
- Visualising
- Data-analysis
- Processing feedback
- Reframing
- Rethinking
- Self-evaluating
- Emotional self-management.

The knowledge needed for developmental reflection includes an individual's understanding of themselves and their feelings along with familiarity with some key tools such as visualising, verbalising, reframing and analysing.

Developmental reflection as a signature pedagogy is both a personal learning process involving learning through a wide variety of 'journalling' techniques and a social aspect possibly best served by learning alongside a trusted individual who can act as a critical friend, questioning feeling and thinking responses to situations and events.

A theory of pedagogy for coproduction

In summarising this initial thinking about a theory of pedagogy for coproduction there are a number of strands of thought which seem useful:

1. Coproduction of healthcare (or education) is necessarily framed by the idea of it being a service not a product and such a framing fundamentally changes the relationship between professional and patient/learner bringing them into a more holistic and participatory dialogue.
2. The desired outcomes of such a relationship whether in health or education are three-fold, to live more healthily, more well and achieving more of whatever counts as success.
3. Pedagogy is the means of fostering the vitality by which learning is brought to life in order to help us to achieve health, wellness and success.
4. Pedagogy applies both to the healthcare professional and to the TIFKAP as a means by which each can improve their lives and working relationship.
5. Three signature pedagogies or clusters of learning methods are helpful in thinking about coproduction - disciplined inquiry, learning community and developmental reflection.
6. Each of the three signature pedagogies has a set of associated habits, skills and knowledge and some learning methods which are likely to be most conducive to cultivating these.

There are many implications of this theoretical model, not least the need to remember that it is the patient's health that healthcare service interventions serve and the learners'

learning that teacher's efforts serve. In both cases, the professionals can invite a sense of what is possible, but their interventions must meet the TIFKAP or TIFKAS (student) aims. For many this may lead to quite significant rethinking.

It is our intention that, after a period of empirical validation and refining, we can explore the many implications for research, practice and policy with a variety of interested parties.

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References

Batalden, P. (2018) Getting more from healthcare: quality improvement must acknowledge patient coproduction. *BMJ* 362:k3617.

Batalden P. and Davidoff F. (2007) What is "quality improvement" and how can it transform healthcare? *Qual Saf Health Care* 16:1, 2-3.

Beetham, H. and Sharpe, R. (2013) *Rethinking pedagogy for a digital age: Designing for 21st century learning*. Abingdon: Routledge.

Bryk, A., Gomez, L., Grunow, A., LeMahieu, P. (2015) *Learning to Improve: How America's schools can get better at getting better*. Boston, MA: Harvard Education Press.

Bruner, J. (1996). *Towards a Theory of Instruction*. Cambridge, MA: Harvard University Press.

Claxton, G. (2016) *Intelligence in the Flesh: Why your mind needs your body much more than it thinks*. New Haven, CO: Yale University Press.

Clouston, T., Westcott, L., Whitcombe, S., Riley, J., and Matheson, R. (Eds) (2010) *Problem-based learning in health and social care*. Oxford: Wiley

Deniston-Trochta, G. (2003) The Meaning of Storytelling as Pedagogy. *Visual Arts Research* 29 (57), 103-108.

Dewey, J. (1897). My Pedagogic Creed. *School Journal*, 54, 77-80.

Dweck, C. (2006). *Mindset: The new psychology of success*. New York: Random House Publishing Group.

Dweck, C., Walton, G., & Cohen, G. (2011). *Academic Tenacity: Mindsets and skills that promote long-term learning*. Seattle, WA: White paper prepared for the Gates Foundation.

Ericsson, A., and Pool, R. (2016). *Peak: Secrets from the new science of expertise*. New York, NY: Houghton Mifflin Harcourt Publishing Company.

Greenhalgh, T (2018) *How to implement evidence-based healthcare*. Oxford: Wiley Blackwell.

International Coproduction Health Network, <https://icohn.org/>

Klerkx J., Verbert K., Duval E. (2014) *Enhancing Learning with Visualization Techniques*. In: Spector J., Merrill M., Elen J., Bishop M. (eds) *Handbook of Research on Educational Communications and Technology*. New York, NY: Springer.

Kolb, D (1984) *Experiential Learning: Experience as the Source of Learning and Development*. Englewood Cliffs, N.J: Prentice-Hall.

Lave, J. and Wenger, E. (1991) *Situated learning; legitimate peripheral participation*. Cambridge: University of Cambridge Press.

Locke, E. and Latham, G. (2002) Building a practically useful theory of goal-setting and task motivation. *American Psychologist*. 57:9, 705–717.

Lucas, B, Claxton, G and Spencer, E (2013) *Expansive Education: Teaching learners for the real world*. Melbourne: Australian Council for Educational Research.

Lucas, B., Hanson, J. and Claxton, G. (2014) *Thinking like an engineer: implications for the education system*. London: Royal Academy of Engineering.

Lucas, B. and Spencer, E. (2015) *Remaking Apprenticeships: powerful learning for work and life*. London: City & Guilds.

Lucas, B. (2015) Getting the improvement habit. *BMJ Quality and Safety*. 25: 400-403.

Lucas, B and Spencer, E (2017) *Teaching Creative Thinking: Developing learners who generate ideas and can think critically*. Carmarthen: Crown House Publishing Ltd).

Lucas, B. and Smith, C. (2018) *The capable country: Cultivating capabilities in Australian Education*. Melbourne: Mitchell Institute

Meyer J (2001). Action research. In: Fulop N et al., (eds.) *Studying the organisation and delivery of health services: research methods*. London: Routledge.

Parks, S., d'Angelo, C. and Gunashekar, S. (2018) *Citizen science: generating ideas and exploring consensus*. Cambridge: THIS Institute.

Patton, M., 2010. *Developmental Evaluation: Applying complexity concepts to enhance innovation and use*. New York: Guilford Press.

Roberts, J., Fisher, T., Trowbridge, M., Bent, C. (2016) A design thinking framework for healthcare management and innovation. *Healthcare*, 4(1): 11-14.

Savery, J. and Duffy, T. (1995). Problem Based Learning: An instructional model and its constructivist framework. *Educational Technology* 35: 31-38.

Shulman, L. (2005) Signature pedagogies in the professions. *Daedalus*. 134(3): 52–59 .

Stoll, L., Bolam, R., McMahon, A., Wallace, M., and Thomas, S. (2006). Professional learning communities: a review of the literature. *Journal of Educational Change*. 7 (4): 221–258.

Vygotsky, L. (1978). *Mind in Society*. Cambridge, MA: Harvard University Press.

Wiliam, D. (2006). Assessment for Learning - why, what and how. *Cambridge Assessment Network Seminar*. Cambridge: Cambridge Assessment Network.