

## Impact case study (REF3)

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| <b>Institution:</b> University of Edinburgh   |                                  |  |
| <b>Unit of Assessment:</b> 30 (Philosophy)  |                                  |  |
| <b>Title of case study:</b><br>Educating for the intellectual virtues: Changing organisational practice in Scottish prisons, public institutions, and private business  |                                  |  |
| <b>Period when the underpinning research was undertaken:</b> 2012 – 2019  |                                  |  |
| <b>Details of staff conducting the underpinning research from the submitting unit:</b>  |                                  |  |
| <b>Name(s):</b>   | <b>Role(s) (e.g. job title):</b> | <b>Period(s) employed by submitting HEI:</b> |
| Duncan Pritchard  | Professor of Epistemology        | Jul 2007 – Sep 2020                          |
| Lani Watson   | Leverhulme Early Career Fellow   | May 2017 – Dec 2020                          |
| <b>Period when the claimed impact occurred:</b> August 2013 – December 2020   |                                  |  |
| <b>Is this case study continued from a case study submitted in 2014?</b> N  |                                  |  |
| <p><b>1. Summary of the impact</b></p> <p>Intellectual virtues are traits that characterise good thinkers and learners, such as curiosity, open-mindedness, and rigour. Research at the University of Edinburgh investigates how best to cultivate the intellectual virtues in an educational setting, and has applied this to prisons, cultural organisations, and in the private sector.</p> <p>Impacts of the research include influencing the <b>education service of the Scottish Prison Service</b>; facilitating <b>organisational change</b> (in relation to the [text removed for publication] Royal Zoological Society of Scotland, Royal Botanic Garden Edinburgh); and developing a <b>commercial product</b> to support professional development and organisational improvement (Success Methods).</p>   |                                  |  |
| <p><b>2. Underpinning research</b></p> <p>An important theme in contemporary epistemology is that an individual's cognitive agency is connected to their ability to achieve knowledge. Such positions tend to advocate for the development of the intellectual virtues (e.g. humility, curiosity, open-mindedness, courage), rather than for the mere passive acquisition of propositional knowledge. Pritchard and Watson defend two complementary versions of this approach. They argue that <b>educating for the intellectual virtues</b> can help an agent realise various epistemic (and other) goals, and they propose novel practical strategies to promote growth of intellectual virtues among learners.</p> <p><b>Pritchard's</b> research concerns the nature of knowledge. He defends a definition of knowledge as virtue-based (knowledge depends on a person's cognitive dispositions or intellectual virtues) [3.1]. In exploring the synergies between virtue epistemology and the epistemology of education, Pritchard distinguishes between various stages of cognitive achievement: a <i>weak</i> cognitive achievement might be enough to constitute knowledge in an epistemically friendly environment, but a <i>strong</i> cognitive achievement requires demonstrating a higher level of cognitive skill, for example by generating knowledge even in an epistemically unfriendly environment [3.2]. One role of education, Pritchard argues, should be to enable pupils to move from <i>weak</i> to <i>strong</i> cognitive achievements by encouraging the development of intellectual virtues [3.2]. In light of this, he has defended an <b>extended virtue epistemology</b> in which the external environment (e.g. online learning resources, or even peer group structures) can support learners in moving from <i>weak</i> to <i>strong</i> cognitive achievement [3.3].</p> <p><b>Watson's</b> research analyses the relationship between <b>asking questions</b> and cultivating the intellectual virtues. Traditional classroom approaches tend to assume that a teacher's role is primarily to ask questions and that a student's role is primarily to answer them. Watson</p> |                                  |  |

argues that this “answer-oriented” approach to learning does not allow students to develop their own questioning skills and so limits the opportunities for cultivating a student’s intellectual virtues. Watson argues we should adopt a more “question-orientated” approach. She defends the benefits of such an approach because it provides opportunities to foster student curiosity, intellectual humility, open-mindedness, intellectual autonomy, and intellectual courage [3.4]; it tends to boost performance on traditional measures of educational success, such as standardised tests; and it helps to cultivate students’ civic character and capacity for democratic engagement outside the classroom [3.5]. Watson has developed a number of practical techniques to cultivate the intellectual virtues via questioning. For instance, she argues that *curiosity* requires a degree of ignorance in the learner alongside a sincere motivation to learn and good judgement concerning questions to ask. Teachers should be primed to value certain forms of ignorance among their students as well as focusing on a student’s motivation and judgment [3.6].

### 3. References to the research

- [3.1] **Pritchard, D.** (2012). Anti-luck virtue epistemology. *Journal of Philosophy*, 109(3), 247–279. <https://www.jstor.org/stable/43820700>
- [3.2] **Pritchard, D.** (2013). Epistemic virtue and the epistemology of education, *Journal of Philosophy of Education*, 47(2), 236–247. <https://doi.org/10.1111/1467-9752.12022>
- [3.3] **Pritchard, D.** (2015). Intellectual virtue, extended cognition, and the epistemology of education. In J. Baehr (Ed.), *Intellectual Virtues and Education: Essays in Applied Virtue Epistemology* (1 ed., pp. 113–127). Routledge. <https://doi.org/10.4324/9781315714127-7> (can be supplied by HEI on request)
- [3.4] **Watson, L.** (2018). Educating for good questioning: A tool for intellectual virtues education. *Acta Analytica*, 33(3), 353–370. <https://doi.org/10.1007/s12136-018-0350-y>
- [3.5] **Watson, L.** (2019). Educating for good questioning as a democratic skill. In M. Fricker, P. J. Graham, D. Henderson, & N. J. L. L. Pedersen (Eds.), *The Routledge Handbook of Social Epistemology* (pp. 437–446). Routledge. <https://doi.org/10.4324/9781315717937-43> (can be supplied by HEI on request)
- [3.6] **Watson, L.** (2018). Educating for curiosity. In I. Inan, L. Watson, D. Whitcomb, & S. Yigit (Eds.), *The Moral Psychology of Curiosity* (pp. 293–310). Rowman & Littlefield International. (can be supplied by HEI on request)

### 4. Details of the impact

Research undertaken by Pritchard and Watson has resulted in changes to educational delivery and organisational strategy, with associated benefits for a diverse range of stakeholders.

#### Education in prisons

Pritchard’s research has generated impact through the establishment of a new education programme adopted by the Scottish Prison Service, developed in collaboration with colleagues at the University of Edinburgh’s Moray House School of Education and Sport. Prisons constitute a particularly restricted type of epistemic environment due to, e.g., limited access to technology, varied experience of formal education and literacy among learners, and potentially challenging social relations. Pritchard created a programme that was explicitly designed to foster the development of intellectual character in this restricted epistemic and educational setting. In line with extended virtue epistemology, this educational programme is initially heavily scaffolded to enable learners to manifest weak cognitive achievements, with these scaffolds being gradually removed throughout the programme to enable learners to manifest stronger cognitive achievements and, thereby, develop and exercise the intellectual virtues.

The 2014 pilot, which used an adapted, off-line version of the University of Edinburgh’s *Introduction to Philosophy* MOOC (Massive Open Online Course) and did not presuppose

any prior knowledge or strong levels of literacy, has since expanded to work with 5 (out of 15) Scottish prisons, reaching approximately 130 prisoners [5.1]. Impacts on individual prisoners include promoting intellectual virtues such as open-mindedness, intellectual humility and perspective-taking [5.2]. One prison educator noted that these developments were “the biggest transformation I’ve seen in the nearly five years that I’ve worked with prisoners in such a short space of time” [5.2]. The learners themselves noted the importance of these virtues in situations beyond the classroom: “these are skills that are useful when you’re back in the block, when you’re dealing with officers, when you’re having to go to [integrated case management] meetings” [5.2].

Pritchard’s work has influenced institution-level strategy for the prisons service in Scotland. The Head of Offender Learning for Scottish Prisons Service (SPS) confirms that “the Philosophy in prisons project in collaboration with University of Edinburgh has contributed to SPS meeting our strategic priority of increasing participation in education and encouraging learners to become responsible citizens” [5.1]. The SPS aims to “find ways to enrich and broaden the core curriculum” and they confirm that Pritchard’s research “helped us justify this approach and the subsequent enhancement of the curriculum” [5.1]. Beyond Scotland, the project has inspired and influenced philosophy in prisons projects elsewhere in the UK: the founders of the London-based Philosophy in Prison charity note that the successful initiatives in Scotland, especially the University of Edinburgh’s project, were “very significant to us as we set up the charity ... [It] gave us the confidence to see that this kind of project can be made to work” [5.3].

### Question First consultancy

In 2019, Watson founded the **Question First** consultancy. Her aim was to apply her research on questioning to help external organisations appreciate the role of questioning in fostering the growth of intellectual virtues inside their organisation and to improve their existing questioning practices. Question First clients include [text removed for publication] the Royal Zoological Society of Scotland; the Royal Botanic Gardens Edinburgh; and the commercial firm, Success Methods. The impact of Watson’s research on each organisation is outlined below.

[text removed for publication]

In 2019, Watson was approached by the Head of Discovery and Learning at the **Royal Zoological Society of Scotland** as part of their plan to collaborate with academic researchers beyond the biological sciences. The Head of Discovery and Learning describes the work of the Education Team as “fundamentally based on questions and questioning” [5.5]. She sought advice from Watson on how to improve their questioning practice with regard to facilitating the interpretation of Zoo exhibits, signage, educational materials, teaching in classroom settings, and evaluation of the effect of its educational programme. As a result of conversations with Watson, she said that “it became apparent that there was a need for the Zoo to think differently about questioning” [5.5]. Watson was invited to run a training workshop for the Zoo’s Education Team (14 staff overseeing 40,000 learner visits a year; learners ranging from nursery-age children to university students). Watson’s workshop was “extremely well received” by members of the Education Team and resulted in behavioural change:

“... it was possible to observe tangible changes in the way the team phrased its questions afterwards. The way the team communicated and the questions they asked improved. ... it was noticeable that team members were looking at and approaching things differently. And this led to better quality discussions amongst the team in meetings following on from the workshop” [5.5]

Watson was subsequently approached by the **Royal Botanic Garden Edinburgh** (RBGE), when the Zoo’s Head of Discovery and Learning took up the role of Head of Education at RBGE. RBGE’s Education Team has a similar mission to that of the Zoo (handling 10,000 learner visits a year); it also facilitates undergraduate and postgraduate study (e.g. in

Horticulture or Biodiversity) and offers a range of its own diploma courses (e.g. in Botanical Illustration or Garden History). During the COVID-19 pandemic, online enrolments for RBGE education increased by approximately 700% (from 182 to 1,444 learners). This created a challenge for the Education Team to know in an online learning setting how “to interact with the students directly and pick up subtleties of when they might need extra input” [5.5]. The Head of Education said that the “need for asking the right questions to students in this online setting led me back to Dr Watson” [5.5].

In 2020, Watson ran a virtual (as result of COVID-19) training workshop for the Education Team (26 RBGE staff). The Head of Education observes that feedback was “amazing. It was obvious that the team benefited from being coached on questions and questioning by Dr Watson. A substantial number of team members contacted me afterwards to say how useful the workshop had been” [5.5]. She further confirmed that “Dr Watson’s work has changed how I think and how I approach questioning, helping to make the questions I ask more effective” [5.5]. Overall, she said that:

“... what came out of the workshop, drawing upon Dr Watson’s research and expertise, was a showcase for best practice in questions and questioning in educational delivery online. This was of significant strategic value to RBGE, and to the Education Team in particular” [5.5]

Watson’s research on questioning has influenced **Success Methods**, a UK-based firm (founded in 2018) that provides online training in “customer success” – a business methodology that aims to help customers achieve outcomes by cutting across traditional boundaries inside organisations. Clients of Success Methods include GE Digital (USA-based subsidiary of multinational General Electric), iCabbi (Ireland-based taxi technology company); and Juniper Education (UK-based support service for education) [5.6]. In 2020, Success Methods developed a bespoke online training course, *Mastering Professional Conversations*, with a prominent section devoted to developing questioning skills based in part on Watson’s research. The founder and CEO of Success Methods commented that Watson’s research findings “fundamentally changed the content” of the course [5.6]. The course is now amongst the company’s most popular offerings. The CEO’s evaluation was that “the entirety of the course is dramatically improved due to Dr Watson’s research” [5.6].

Success Methods subsequently contracted Watson to revise the types of products it offers, and to move beyond its current specialisation in training courses. Watson applied her research to develop an online Questioning Styles Assessment tool in collaboration with the CEO, which as of December 2020 is undergoing customer piloting (602 participants) in advance of a full commercial launch. The Questioning Styles Assessment Tool helps people identify their particular questioning style relative to a range of existing profiles. The tool can be used to determine which questioning style is most appropriate for a particular organisation’s team, allowing organisational planning to take this characteristic into account. The company’s founder believes the tool will,

“... bring further substantial benefit to both those organisations who engage with the resource, and to Success Methods as a company ... I believe its potential is such that it will fundamentally transform the nature of Success Methods’ business” [5.6]

To date, Success Methods has invested time and resources equivalent to over GBP60,000 into the development of this tool, and the CEO worked 2 days a week with Watson (March to December 2020) to bring the product to market. Customers in the pilot commented:

“Very interesting topic and enjoyable test! I found myself reflecting on my own habits in ways I haven’t before” [5.6]

“... well done for working on such an important topic. The art of asking good questions is being lost in popular culture so I commend any effort to help us analyse and educate society in how to do this better” [5.6]

**5. Sources to corroborate the impact**

[5.1] Testimonial from the Scottish Prison Service, 2019

[5.2] Pritchard, D. (2019). Philosophy in Prisons: Intellectual Virtue and the Community of Philosophical Inquiry, *Teaching Philosophy*, 42(3), 247–263.  
<https://doi.org/10.5840/teachphil201985108>

[5.3] Statement from Philosophy in Prisons charity, 2019

[text removed for publication]

[5.5] Statement from Edinburgh Zoo and Botanics, 2020

[5.6] Statement from Success Methods and client information, 2020