Creativity and Critique in Digital Learning and Teaching

Insights for Learning Design in Business and Law

Edited by
Jacqueline Baxter
Helen Selby-Fell
Andrew Gilbert

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This book is dedicated to Open University students past and present, who have shown the ultimate in resilience, dedication and resolve, in gaining qualifications in business, law and policing, whilst working and caring.

Jacqueline Baxter
Helen Selby-Fell
Andrew Gilbert
June 2024

Foreword

We are firmly in the era of Gen Z and even moving into Gen Alpha (think Prince George—son of Prince William and grandson of King Charles), where immersion and engagement with technology and digital interfaces are as normal as eating, sleeping and breathing. These generations, also referred to as the 'TikTok generations', engage, focus and interface with knowledge and learning in ways which we as educators have to observe and seek to understand. Even the youngest of our academic and teaching staff are only just ahead of this generation. So the need to unpack, recognise, reflect and critique 'the what and how' of digital learning and teaching is so important, as we have a duty and responsibility to prepare our students and learners for the world in which they will work and thrive in the future—a world they may well understand more fully than us.

It is important we embrace the opportunities in innovation and creativity in digital learning and teaching, in designing material which supports knowledge creation, expertise, skills and capabilities across all disciplines. The pedagogy is changing at a rapid pace not only in the classroom but also outside of it, and particularly in relation to assessment. Chapters in this book cover a range of perspectives focused on digital, artificial intelligence (AI) and related technologies. The book considers how to teach students content through digital means, including the use of simulation and gaming, which has seen a significant rise in application since the pandemic, but also with a focus on skills and capabilities to ensure students and learners are life as well as work ready.

We need to consider the whole journey of learning for the student so they are engaged in the formats and mechanisms, taking ownership and responsibility for their own learning, which we know increases motivation and outcomes. We can use technology and digital formats through asynchronous modes to allow the students to *prepare* in the subject. Then through synchronous interactive approaches in the classroom (virtual and physical) students can *engage* with the material and create a sense of belonging with a cohort of participants. Finally, finding ways to use digital technologies to ensure authentic assessment allows students to *consolidate* their understanding. The chapters in this book cover all of these stages of the journey providing focused examples and case studies and allowing a richness of ideas to support, collaborate and co-produce with students throughout their learning journey.

Digital learning and teaching can be a means to engage and embrace a range of learners, allowing opportunity to address the attainment or awarding gap but can also, if not considered carefully, exclude students. Ensuring digital learning and teaching are inclusive is important and, as the book reports, digital poverty is a substantial barrier to this.

AI and related technologies allow us to collect data and develop interventions to support an inclusive approach, for example, the use of chatbots, which can feed into learning analytics allowing academic staff to adjust their material and focus, is a fast and interactive way to ensure learning is being received. Actively engaging in the use of generative AI for assessment can be a means to embrace and enhance the understanding of its use for students (and academics!).

Embracing and understanding how we positively engage, use and embed digital learning and teaching is no longer an option or 'cutting edge'—it is the way education will be for the future, only moving more and more rapidly, with the learners often ahead in their understanding of the technology. But, as academics and teachers, we hold the knowledge and experience of the content and pedagogy of education, and, with this book and collection of chapters, a wealth of understanding, reflection and insight is shared on how to achieve creativity, whilst retaining

healthy critique of our methods and design in digital learning teaching in business, law and policing. Enjoy the read (or e-read!).

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Praise for *Creativity and Critique in Digital Learning and Teaching*

"This book is, no doubt, one of the essential resources when it comes to innovation, inclusivity, and excellence in digital education not only for business and law educators, but anyone who is interested in digital higher education through its distinct exploration of generative AI's impact on education and the critical examination of digital poverty and its implications for higher education. The book offers many useful tools for educators and higher education organisations, such as the scholarship of teaching and learning (SoTL) which is brilliantly conceptualised and applied, provides a robust framework to enhance their digital offerings and ensure that learning outcomes are met with rigour and relevance.

As the world of education continues to struggle with the implications of technological advancement and societal shifts, this book leads the way towards an inclusive and innovative education agenda and it is an ultimate guide for those who are committed to shaping the future of business and law education and more. Palgrave Macmillan Publication should be praised for bringing this important work to light, a must-read for educators, administrators, and policymakers alike."

—Dr. Inci Toral, *Associate Professor, University of Birmingham, Business School, UK*

"This book shares valuable practice of how to navigate innovative approaches in digital education environment that are attainable for staff and accessible and engaging for students."

—Professor Radka Newton, *Director of Centre for Scholarship and Innovation in Management Education, Lancaster University Management School*

"Creativity and critical thinking are the bedrock of effective designs for learning with technology – this excellent book shows us how such designs must also respect equity and ethics to fully meet the new educational challenges of our times."

—Professor Agnes Kukulska-Hulme, *Professor of learning Technology and Communication, The Open University*

"Digital scholarship is an area of growing importance and centrality. This book aims to inform and clarify foundational assumptions in learners and teachers, and to reduce the mismatch of expectations on all sides by the provision of considered and evidence-based scholarship."

—Professor Caroline Strevens, *Portsmouth Law School, University of Portsmouth*

"Higher education continues to evolve in a turbulent environment. Accelerated by the Covid pandemic, a key development is the break-neck speed with which institutions have adopted digital learning and teaching methods. This shift happened so rapidly that frequently scholarship is chasing practice in terms of what works, how, for whom and in which setting. This text, drawing on a wealth of empirical material and with a focus on business and law at an institution that arguably spearheaded digital learning before it became 'fashionable', addresses key themes in the provision and efficacy of digital learning and teaching. The text adopts a critically reflective stance, seeking to unpick the complex weave of challenges and opportunities the move to digital presents, addressing for example issues around digital inclusion, improving engagement, fostering a sense of belonging, assessment and the role of AI, as well as issues which remain on the margins despite their importance, e.g. listening to the student voice and the impact on the role and identity of the educator. Scholars, educators and HE managers will find this volume invaluable in trying to better understand at both micro and holistic levels

the phenomenon of digital teaching and learning, crucially then with a view to improving educational practice."

—Andreas Wamsley, *Associate Professor Marjon Business Plymouth Marjon University*

"Jacqueline Baxter, Andrew Gilbert and Helen Selby-Fell have compiled an excellent collection of works inspired by the scholarship of teaching and learning (SoTL) on business and law in a digital environment. This brilliant new book is an essential guide for anyone designing courses in a blended or fully digital format and looking for inspiration. Keeping a practical orientation in mind, the editors have compiled a series of mind-expanding chapters on a multitude of substantive issues and woven them into an informative guide on how to use creative approaches and digital technologies to enhance student experience and success. This book is a must-read for educators, student support services and university management aiming to professionalise teaching and learning in an increasingly digital environment and prepare business and law schools for the integration of new and potentially disruptive technologies into the design of curricular and co-curricular activities."

—Carolin Decker-Lange, *Brunel University London, UK*

"These chapters deserve to be a major resource for anyone seeking to understand the challenges of contemporary police professionalisation. They draw on up to date research to highlight the complexities that partnership, organisational cultures and the need to promote 'knowledge into practice' bring to an occupation that, despite seeking professional status, is faced with an ongoing political ambiguity about what form this should actually take. In doing so, this work skilfully addresses a range of crucial issues – from the principles of effective learning collaborations between organisations to an analysis of the role of reflective practice in modern policework."

—Professor Tom Cockcroft, *School of Law and Policing, University of Central Lancashire*

Contents

Notes on Contributors

Grace Allen is a Lecturer and Assistant Head of Student Experience for Law at the Open University in the Faculty of Business and Law. She is an Associate Lecturer, teaching on modules within the undergraduate business programmes as well as a Practice Tutor on the Apprenticeship programme. Grace has led a range of projects within her three years at the Open University, including work focused on diversifying the workforce and supporting students who have experiences within the care system. Grace sits on the University's BME (Black and Minority Ethnic) steering group and is currently the faculty representative on the university's EDI (Equality, Diversity & Inclusion) Committee.

Professor Dr. Jacqueline Baxter (corresponding editor) is Professor of Public Leadership and Management, and Director of the Centre for Research and Innovation in online business and legal education. She is Fellow of the Academy of Social Sciences and Principal Fellow of the Higher Education Academy. Her previous six books include Creativity and Critique in online learning (Baxter et al., 2017) and Trust, Accountability and Capacity in Education System Reform (Ehren and Baxter, 2021), based on research on the South African education system. She has published over 30 journal articles and 40 chapters in books and served for four years as Editor-in-Chief of the journal Management in Education. Prof Baxter is a fully interdisciplinary researcher with a particular interest in strategic leadership identities in education, health and the third sector. She is currently leading a project which examines whether

UK public sector organisations are preventing introverts from attaining leadership positions. Since 2015 she has chaired on the Open University MBA programme. She blogs at: www.jacquelinebaxter.com and tweets at @drjacbaxter.

Dr. Francesca Calo is a Lecturer in Management in the Department of Public Leadership & Social Enterprise, at the Open University Business School. Francesca's research interests include social enterprise and third sector organisation in health and social care, impact evaluation methods and social innovation.

Emma Curryer is a Lecturer of Law at the Open University, a Qualified Solicitor and a Senior Fellow of Advance HE. Emma designed, set up and runs the Criminal Justice Clinic giving students the opportunity to work collaboratively to provide advice on live criminal appeal cases. Emma's research interests include criminal law, the concept of justice, and heritage and justice in the ancient world and literature. She undertakes scholarship in employability and online teaching within clinical legal education and is particularly focused on the effects of vicarious trauma on students and the legal profession.

Carol Edwards is a Senior Lecturer in Legal Online Pedagogy and Assistant Head of Student Experience (Retention and Outcomes) within the Open University Law School. Carol's research interests include tackling student isolation via such programmes as online mentoring and projects focused on creating a sense of belonging for both staff and students. She is involved in scholarship relating to online teaching pedagogy and employability. She tutors on LL.B. Law modules. Before joining the OU, Carol worked in further education and is involved in the quality management of Open Access courses.

Dr. Andrew Gilbert is a Senior Lecturer in Law and Associate Dean for Curriculum and Quality Assurance in the Faculty of Business and Law. Having started his career in legal practice, he has worked in higher education for over twenty years and has gained all-round experience as a tutor, researcher and academic leader. He is a member of the executive committee of the society representing law teachers in the UK, the Association of Law Teachers (ALT) and a reviewer for submissions to the ALT's journal, *The Law Teacher*, a leading journal on the pedagogy of legal education in the UK and overseas. Andrew's recent work has explored how clinical legal education can develop students' social and

cultural capital, law school responses to the Solicitors Qualifying Examination and the impact of generative AI (artificial intelligence) on legal education. In carrying out his role as Associate Dean, Andrew aims to keep the Business and Law Schools true to their claims to be pioneers and leaders in flexible learning.

Liz Hardie is a Senior Lecturer in Law and Teaching Director of the Open University Law School. As part of her role she works for the Open Justice Centre, supporting law students to carry out pro bono projects both as part of their law degree and on an extra-curricular basis. Her research interests include the effective use of online learning and the use of technology in legal education, and the support of students in an online environment. Recent scholarship includes work on peer mentoring, co-creation, belonging to an academic community, the use of online forums and employability skills within clinical legal education. Before joining the OU, Liz was a solicitor practising in the areas of family and employment law.

Sarah Henderson is an Associate Dean at the University of London. She was previously a Senior Lecturer and Teaching Director for the Open University Law School and has a keen interest in the development and delivery of online teaching material. Sarah has recently been heavily involved in the production of materials for the Open University Law Undergraduate degree. To enhance the development of the programme, Sarah has undertaken scholarship around the ways in which digital teaching methods can enrich the student experience and improve academic outcomes. Sarah is a Senior Fellow of the Higher Education Authority and holds an LL.M., Postgraduate Diploma in Legal Practice, Postgraduate Certificate in Academic Practice and Advanced Diploma in Insolvency Practice and LL.B. (Hons).

Dr. Matthew Hinton is a Senior Lecturer in Information and Knowledge Management at the Open University Business School, where he is also the Head of the Department of Public Leadership and Social Enterprise (PuLSE). He is interested in how organisations innovate with their internal business processes and how technology mediates innovation and performance improvement. He serves on the editorial boards of several journals and has been author/co-author of more than 50 publications,

spanning technology assessment, e-business and performance management. He has also been lead academic consultant working with the BBC.

Dr. Isidora Kourti is a Lecturer in Management in the Department of Public Leadership & Social Enterprise at the Open University Business School. Isidora's current research is located within the tradition of the social psychology of organisations and follows a processual and practice-based study of organisations and organising. Her research has focused on exploring the impact of fragmented and temporary working conditions on employees and working practices.

Gizem Kutlu was a Ph.D. Student in Management in the Department of Public Leadership & Social Enterprise at the Open University Business School. Gizem's research interests include the impact of gender on entrepreneurship and sustainable entrepreneurship practices. She teaches business and management at Coventry University.

Jo Lambert is Director of Teaching for the Department of Policing in the Faculty of Business and Law. Jo joined the Open University in 1999 and has worked in delivering the curriculum to diverse audiences. She joined a newly created unit in 2006 specifically targeted at non-accredited and corporate learning before joining FBL in 2012 when the Executive Education unit was created. Through ExecEd, Jo worked on a number of collaborations between private and public sector organisations engaging the University to co-develop learning for specific needs and was asked to join the newly formed policing team in 2018. Since then, Jo has been working with the academics in designing and delivering the learning to meet police force needs in response to the Police Education Qualification Framework. Jo is also a member of the Centre for Police Research & Learning.

Joanna Mirek-Tooth is a Student Experience Manager (Law) in the Faculty of Business and Law. She is also an Associate Lecturer in the Faculty of Wellbeing, Education and Language Studies. Since joining the Open University, Joanna has been actively involved in promoting diversity and inclusion, co-leading on several projects aimed at enhancing student experience and supporting tutors. She has co-written the first university-wide policy for care experienced students.

Stephen Moss is an academic in the Department of Policing at the OU. He is currently responsible for the delivery of the second-year work-based element of the Police Constable Degree Apprenticeship (PCDA) for new police officers. He is also leading the team that is designing the Degree Holder Entry Programme (DHEP). Stephen has extensive experience of learning and development in policing, firstly as a national police investigative trainer and serving officer but then in roles in academia. Through the latter he had a consultant role with the College of Policing as they developed the Police Education and Qualifications Framework (PEQF) and the PCDA curriculum. Stephen is a Senior Fellow of the Higher Education Academy with a particular interest in exploring how reflexivity can help professionals develop their practice and the tools they can use to do this.

Dr. Jennifer Norman is the Head of the Department of Policing in the Faculty of Business & Law (FBL) at the Open University. Jennifer leads a team of interdisciplinary academics in the development of the policing programmes at the Open University that are delivered as part of the Police Education Qualification Framework. Prior to that, she was Programme Director for a policing degree programme designed specifically for serving police officers and staff at Canterbury Christ Church University. Jennifer is involved in a number of police-related research projects which align with her research interests in relation to police professionalism and the role of police education. Having previously worked within policing in a research capacity and as an academic delivering a programme to practitioners, Jennifer recognises the importance of research knowledge being transferable to practice and is committed to ensure that practitioners' voices are represented in research to ensure their experiences are heard within the policing narrative.

Inspector Lee Partridge is the Professional Development Unit Lead for North Yorkshire Police (NYP). He has been a police officer for 26 years and has undertaken a variety of roles, including Firearms, Close Protection, Response and Neighbourhood Policing. Lee has always been interested in performance management and is committed to equipping, supporting and motivating individuals and teams to achieve success. He designed, implemented and leads the Professional Development Unit at NYP and works in partnership with the Open University to deliver the Police Education Qualification Framework entry programmes and build a generation policing excellence.

Dr. Francine Ryan is a Senior Lecturer in Law and Director of the Open Justice Centre at the Open University. Francine's principal teaching interests are clinical legal education, and she has worked to develop a range of innovative and technology-enhanced opportunities for law students. Francine leads the virtual law clinic and the digital justice project which allows students to build apps to support public legal education. Her research interests focus on graduate attributes with a particular emphasis on how technology is impacting on the practice of law and how we empower law students to flourish in the changing world of work.

Abigail Salter is a Lecturer in Policing Organisation and Practice in the Department of Policing at the OU and a former Detective Sergeant who has worked for two Police Forces. With over 16 years' service, Abigail began her career in academia by working for Charles Sturt University, New South Wales, Australia, who deliver the Associate Degree in Policing Practice. Since 2018, Abigail has worked for the Open University Policing Team and is currently the Module Team Chair for Year 1, Work Based Learning on the Police Constable Apprenticeship Degree and also the Work Based Learning Chair for the Degree Holder Entry Programme (DHEP). She also works as a Practice Tutor on the PCDA with a cohort of police apprentices and is a Fellow of the Higher Education Academy with a particular interest in work-based learning.

Alessandro Saroli is a Lecturer, Student Experience Manager and Open Media Fellow with the Faculty of Business of Law at the Open University. He teaches on core modules of the degree (Hon) in Business and Management at UG level, and the MBA at PG level. As Open Media Fellow, he looks after the contribution of faculty's academics to the development of open educational resources and co-productions with the BBC. His research interest focuses on the development of study and professional skills as part of academic qualifications and their embedding in learning design and assessment. Prior to joining the Open University, Alessandro had a career in financial services and management consultancy. He holds a UG degree in Business Economics from Bocconi University in Milan (Italy), a UG honours degree in European Studies from the Open University, an MBA from London Business School and a PG Diploma in Online and Distance Learning from the Open University.

Fulvio Scognamiglio is a Ph.D. Student in Management in the Department of Public Leadership & Social Enterprise at the Open University

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Dr. Helen Selby-Fell holds a Senior Lectureship in Policing and is Deputy Director of SCiLAB (the Scholarship Centre for innovation in Online Legal and Business Education) in the Faculty of Business & Law (FBL) at the Open University. Helen is also the Scholarship Lead for the Department of Policing and works closely with the Centre for Police Research & Learning (CPRL). Helen has wide-ranging research interests including the conceptualisation and implementation of Evidence-Based Practice (EBP), decision making, crime analysis and forensic psychology in policing. Much of Helen's research focuses on the challenges and facilitators associated with embedding an EBP approach in practice. Helen's research has also explored professional identity in the transition from practitioner to academic in Higher Education, and how Scholarship of Teaching & Learning (SoTL) can assist in this transition in a UK Business School. Prior to joining academia full time, Helen has fifteen years' experience working in the police service, where she held various senior police staff roles.

Amanda Smith an ex-CPS prosecutor and trainer, Amanda has been a Law School Associate Lecturer (AL) at levels one and two since 2009. During that time, she has discovered the pleasures and pitfalls of being an OU student by studying for an M.A. in Online and Distance Education. In addition, she has worked as an Educational Advisor, written tutorial and skills materials, and has been an Employability Champion and an AL representative on the SCiLAB working group. She is a Peer Associate Lecturer Support and Tutoring Online team member, supporting other tutors in using Adobe to provide effective and inspirational tutorials, and a Student Hub Live team member. More recently, she has turned her attentions to research, investigating the use of digital badges in supporting employability, the OU's Department of Policing Organisation and Practice on the use of reflection as an assessment tool, the Virtual Reality Courtroom within work-based learning, and Middlesex University on their Apprenticeship Workforce Development project funded by the DfE. Her extensive experience of reflective practice has led to a further research assistant role with WELS (the Faculty of Wellbeing, Education and Language Studies) and the AI in Support of Reflection project (AIR) investigating the uses of machine learning to automatically analyse students' reflective writings.

Dr. Nicoleta Tipi is a Senior Lecturer in the area of Operations and Supply Chain Management at the Open University. Her research interest lies in the field of supply chain simulation and modelling, sustainability and resilience in the supply chains, supply chain performance measurement systems with a particular angle in teaching these concepts in higher education. She has practical experience from working with these concepts in industry. She is a Fellow of Higher Education Academy and has over 18 years' experience of teaching this content and has explored ways of bringing her research into teaching and digital teaching. In her teaching practice, she has challenged ways to better the link between practical and theoretical applications and has recently published a book on Supply Chain Analytics and Modelling.

Ben Trupia-Melluish is a Senior Lecturer in Management and Head of Student Experience in the Law School at the Open University (OU). Ben has worked across both the business and law schools whilst at the OU and is also actively engaged with the FutureLearn platform. Ben has held many roles at the OU including Student Experience Manager, Assistant Head of Student Experience and Module Chair. His teaching experience and interests to date are concerned with marketing and entrepreneurship. Ben's scholarship and research interests cover a range of areas connected with how students learn and what motivates students to continue and progress with their chosen study paths. Ben is a Senior Fellow of the Higher Education Academy (HEA) and holds an MBA, PGCE and B.A. (Hons) International Business Management. He is also a Chartered Manager recognised by the CMI and a certificated External Examiner recognised by the HEA.

Dr. Aqueel Wahga is a Senior Lecturer in Management in the Department of Public Leadership and Social Enterprise (PuLSE) at the Open University, where he brings academic experience from posts held in the UK and Pakistan. His research interests include entrepreneurship, enterprise education, enterprise development, innovation and sustainability. Moreover, he likes to investigate the socio-economic and political issues. His teaching interests range from entrepreneurship and sustainability to business and management studies, business research methods, business ethics, microeconomics and macroeconomics. Aqueel actively contributes to enhancing policy and practice to foster entrepreneurial communities, nurture entrepreneurial leaders and facilitate economic transformation to effectively engage with initiatives focused at addressing the grand global challenges.

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CHAPTER 1

Preface and Introduction to the Volume

Jacqueline Baxter, Helen Selby-Fell, and Andrew Gilbert

> Don't limit a child to your own learning, for they were born in another time.
> (Rabindranath Tagore)

The title of this book raises two questions for the reader: why creativity and critique and why bring together business, law, and policing, into one volume?

Turning to the first question, as Chapter 2 explains, the field of education, and higher education (HE) within this, is undergoing some of the most substantial changes in its long and chequered history. A global pandemic, the advent of generative artificial intelligence (GAI), and the

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climate crisis have provoked, and are provoking, the questions, 'what is education for?' and 'how do we prepare individuals for the world of tomorrow?' As curriculum developers, we must perennially look to the future, using our research to create the most cutting-edge materials to equip students for their lives and careers, but never have the words of Rabindranath Tagore (above) seemed so relevant as they do today. And, as it becomes increasingly difficult to predict the future (and present) needs of our students, designing relevant teaching materials to engage and excite them is, concomitantly, an increasingly multi-faceted, complex, and intellectually challenging endeavour.

In this sense, the Scholarship of Teaching and Learning (SoTL) comes to the fore, for how can we design and deliver effective education if we never examine, in a robust and effective manner, whether what we are doing is working? How can we innovate in relation to curriculum and pedagogy if we never pause, reflect, and research our practice? It is in this spirit that this book provides both creativity and critique. The creative elements of the book emerge from the curiosity of the HE teachers in relation to their practices and the education of their students: the ways in which they, as practitioners, formulate and investigate questions at module and programme level. These questions often begin with investigations into a single module and, like an oak from an acorn, 'create a thousand forests,[1]' effecting changes, some far reaching, for both students and their teachers. The critique emerges from the research questions themselves, but equally from the results of the projects, and the tips and discussion points emerging from them. These critical insights provide an argosy of insights into various aspects of digital learning and should provoke lively debate and discussion as well as valuable teaching tips and ideas for further scholarship.

Good teaching and learning have always required imagination and creativity, that is what makes the field so engaging, but in the pell-mell of business as usual, it is rare for HE teachers to be afforded the luxury of standing back and examining their practices, as well as those that have been imposed upon them by other factors, for example, policies, technological innovations, and financial constraints. When they do so, they are afforded myriad opportunities to develop not only their own practice, but equally, their professional identities, as they share their reflections

[1] Ralph Waldo Emerson.

and findings with a community of HE practitioners (Baxter et al., 2024). Over the past 30 years, HE has been subject to a plethora of innovations, both digital and in relation to policy. These innovations have, amongst other influences, given rise to some outstanding creativity in teaching and learning. However, some innovations have also been adopted and uncritically imposed upon teachers, regardless of whether they improve the student experience or are, in fact, evidence based in relation to the context in which they are being used. In examining what we do and how we do it, we provide a robust foundation for future creativity, embracing and building on what works, and rejecting innovations that clearly do not (Burns, 2017). In so doing, we advance the field of learning and teaching whilst also engendering our own feelings of self-salience and agency in the face of change (Frake-Mistak et al., 2020).

In common with an earlier volume on digital teaching, also based on case studies from the Open University (Baxter et al., 2018), chapter authors approach their subjects via robust research and reflections on how this has impacted or will impact the education of their students. Each chapter offers practical guidance for teachers who are getting to grips with translating face-to-face teaching, and includes tips, discussion points, and further reading and will be of value to educational developers, HE teachers, and leaders.

Why Business, Law, and Policing?

The Faculty of Business and Law at the Open University brings together business, law, and policing in the form of two schools, and the Department for Policing, which is located in the business school. Although each has its own area of curriculum, teams, working in an interdisciplinary fashion, have been able to identify and research communalities in challenges facing them in the design of their digital offerings. The work is coordinated through a Scholarship Centre known as SCiLAB (Scholarship Centre for innovation in Legal and Business Education), where a central team support (both financially and developmentally) the development of research into priority areas for the faculty. The centre also works closely with Faculty Executive and Teaching Directors at both undergraduate and postgraduate levels to ensure that findings are disseminated both within and outside of the university. This also includes support in embedding (where appropriate) findings into practice and encouraging ongoing evaluation in a ‘what works’ approach.

This book came about to mark seven years since the founding of this Scholarship Centre within the Open University Faculty of Business and Law. Although SoTL was carried out for some years before then, the establishment of such a centre provided an opportunity for funding and, for the first time, brought together SoTL projects in both business, law, and policing. In so doing, research teams rapidly realised that many of the challenges and innovations arising within both disciplines had value for both, in terms of learning and learning design. The book is both a celebration of this learning and a measure of the impact that this has had on the content and design of digital learning in the faculty. But in order to understand the work included in the book, it is also important to have insight into the unique institution that is the Open University (OU).

In beginning with a broad overview of the OU, we then move to a description of the unique nature of the student body and the role of SoTL within the institution as a whole. From there we offer a brief overview of the Business School (OUBS), the Law School (OULS), and the Department for Policing, their student profiles, and the place of SoTL within them. Finally, we move to an introduction to the chapters. A more extensive examination of SoTL and its role in HE is provided in Chapter 2.

The Open University: An Overview

The Open University, founded in 1969, is a pioneering institution in distance learning and adult education, established with the mission to make higher education accessible to all, regardless of educational background or geographical location. The idea for it was first proposed in the 1960s by Harold Wilson, the then Prime Minister of the United Kingdom, as part of his vision for a 'University of the Air': a university that would utilise the latest technology in broadcasting to bring university-level learning into people's homes (Weinbren, 2016).

What has set the OU apart since its inception is its open admissions policy, ensuring that anyone can study irrespective of their prior academic achievements. This radical approach to higher education democratised access to learning and placed the OU as an innovator in the field of higher education. Additionally, its unique delivery model, which combines television and radio broadcasts, written materials, online resources, and digital platforms, allows students to study anywhere, anytime, fitting their education around their personal and professional lives (Perry, 1976; Weinbren,

2016). In the twenty-first century, the OU has become a leader in developing and adopting online teaching methods, including its virtual learning environment and online forums. These innovations in delivering distance education have made it a model for open and distance learning institutions worldwide.

Teaching material is written by module teams, multidisciplinary groups responsible for the design, development, delivery, and maintenance of the university's modules. These teams are tasked with ensuring that the educational content is engaging, accessible, and up to date. The composition of a module team can vary depending on the subject matter and complexity of the module, but typically includes the following roles, academic (A), academic related (AR), and professional staff (PS). Roles on a module team normally include:

- **Module chair (or leader) (A):** Oversees the development and delivery of the module, ensuring that it meets its learning objectives and outcomes, quality standards, and is delivered within budget and on schedule. The module chair acts as the main point of coordination for the team and chairs the award board, standardisation, and coordination meetings.
- **Academic authors/content developers (A)**: Subject experts who create and develop the module's academic content, including written materials, multimedia resources and assessment activities. Tasked with ensuring the content is pedagogically sound and aligned with the module's learning outcomes.
- **Qualification managers (QM) (AR)**: Ensure that programmes meet educational standards, regulatory requirements, and the needs of a diverse student body.
- **Student experience managers (A):** Play a key role in enhancing the quality and accessibility of the educational journey for students. Their primary function is to oversee and improve all aspects of the student experience, from enrolment through to graduation. They also gather and analyse student feedback to identify areas for improvement, implement strategies to enhance engagement and satisfaction, and support initiatives that contribute to student well-being, retention, and success.
- **Learning designers (PS)**: Specialists in digital pedagogy who work with academic authors to design engaging and effective learning

experiences. They help to structure the module's content and activities to facilitate online learning.

- **Production coordinators (PS)**: Manage the production of learning materials, coordinating with various departments (such as IT, design, and multimedia) to produce high-quality resources on time and within budget.
- **Multimedia developers (PS)**: Create engaging multimedia content, including videos, animations, and interactive activities to support and enhance the learning experience.
- **Tutors (associate lecturers) (A):** Deliver the module to students, providing guidance, feedback, and support through various channels such as online forums, tutorials, and one-to-one communication.
- **Quality assurance and reviewers (AR)**: Monitor and evaluate the module's delivery and content, providing feedback for continuous improvement.
- **IT and technical support (PS)**: Ensure that the digital platforms and technologies used for the module are effective, user-friendly, and accessible to all students.

Open University Students

Since its inception in 1969, over 2.3 million people worldwide have studied with the organisation. OU students represent a diverse and inclusive demographic, embodying a wide range of ages, socio-economic backgrounds, ethnicities, and abilities, reflecting the institution's commitment to accessible higher education. In 2023, some 63% of OU undergraduate students held a lower qualification upon entry than would be required by other UK universities. The OU has over 200,000 students, including a sizeable proportion of international students and a diverse age range, with more than 33% of new undergraduates under 25 years old (Open University, 2024a).

A key distinguishing factor of the OU social mission is to provide equal opportunities to students who may not, for whatever reason, have had access to standard routes of higher education but who nevertheless possess the necessary academic capabilities and motivation to succeed academically given the right conditions and support. The OU offers flexibility for students to fit learning into their lives wherever they live and whatever they do. For example, most of our students are already

in work and some students have a disability and/or caring responsibilities (16% of UG business students (FTE) and 11% of PG business students (FTE) declared a disability in 2023), which may prevent them from attending a traditional regional campus-based university. Socio-economically, OU students come from various backgrounds, including 28% of UK undergraduates residing in the most deprived areas.

The open access policy along with the diversity of the student body engender considerable challenge in relation to design of learning. SoTL is a key mechanism for evaluating the extent to which OU offerings are effective in reaching out to this diverse student body, providing them with robust, innovative, and flexible educational experiences (Open University, 2024b).

The Scholarship of Teaching and Learning at the Open University

The Scholarship of Teaching and Learning plays a crucial role in the University's innovative and student-responsive approach to teaching and learning and its mission to be open to people, places, methods, and ideas. SoTL positions the OU as an institution where teaching and learning are underpinned by practitioner-led systematic inquiry, grounded in context, and conducted in partnership with students (Open University, 2024a).

In addition, the Scholarship of Teaching and Learning:

- 'is integral to building on The Open University's (OU) position as a global leader in the field of open, online, and supported distance learning.
- ensures that students have opportunities for active involvement in enhancing learning.
- engages staff to enhance their professional identities and knowledge.
- supports the development of successful module and programme designs.
- facilitates collaboration between students and staff in academic and academic-related roles, building communities of practice within and across faculties' (Open University, 2024a, b, p. 4).

The OU has a long history in relation to evidence-based teaching and SoTL. Each faculty has its own centre for discipline-specific scholarship

and these centres have supported over 400 SoTL projects since 2018. The centres, featured in Figs. 1.1 and 1.2, include SCiLAB (Baxter et al., 2024).

Since its foundation, SCiLAB has worked collaboratively with other centres and a wide range of stakeholders both within and outside of the university. However, the field of SoTL is not without its challenges, and these are discussed in Chapter 2.

The studies in this book represent a fraction of the hundreds of SoTL projects carried out at the OU, which are accessible via both the SCiLAB website and the central scholarship site (Dawson, 2024), which contains a variety of project summaries from all disciplines and faculties within the institution.

Fig. 1.1 SCiLAB centre for scholarship and innovation business and law

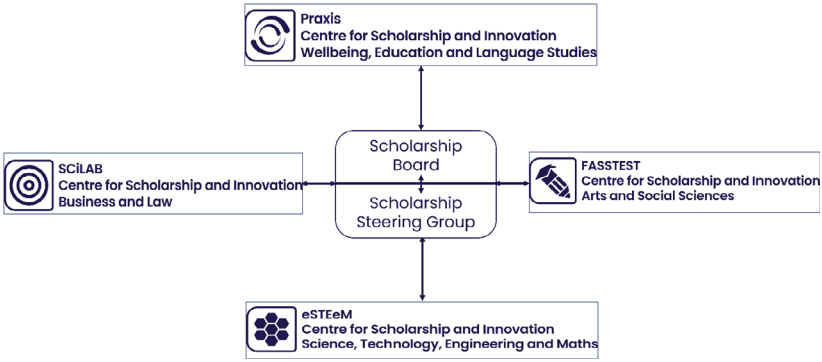

Fig. 1.2 Centres for scholarship of teaching and learning at the Open University UK (*Note* Reproduced with permission of the Open University Scholarship Steering Group)

The Open University Business School

The Open University Business School celebrated its 40th anniversary in 2023 and is one of the largest business schools in Europe, with more than 119,000 graduates across 125 countries to date (over 40,000 of these being internationally based). In 2022/2023, the School had approximately 12,439 students registered on a business qualification (approximately 7,223 full-time equivalent [FTE]). The School is organised across five disciplinary departments: Accounting and Finance, People and Organisations, Policing, Public Leadership and Social Enterprise, and Strategy and Marketing.

Throughout its history, OUBS has made significant contributions to various fields, including leadership, management, finance, marketing, and entrepreneurship. OUBS's research output, encompassing both theoretical advancements and practical insights, has informed business practices and policymaking globally (Weinbren, 2016).

The Open University Law School (OULS)

Established in 1998, OULS has grown to become a full-service law school providing undergraduate and postgraduate legal education and being home to a vibrant community of around 9,000 students and over 60,000 alumni. From its inception it faced the formidable challenge of translating traditional legal pedagogy into a format conducive to distance learning, becoming the first institution to provide a genuinely open law degree. OULS plays a role in advancing access to justice through its Open Justice Centre (OJC), established in 2016, which empowers law students to deliver the social justice mission of the OU by inculcating a commitment to public service (McFaul et al., 2020).

OULS's impact extends beyond its immediate student body, influencing broader legal and societal dimensions. Its academics produce world-leading research, have been consultants on a number of BBC/OU co-productions such as *The Prosecutors* (2016) and *Parole* (2023), and developed educational material for organisations such as the United Nations Office on Drugs and Crime. By fostering a community of legal professionals dedicated to ethical conduct, social responsibility, and the rule of law, and by promoting legal awareness within society, OULS contributes to the advancement of justice and the protection of rights and freedoms.

The Department for Policing

The Department for Policing is an interdisciplinary team based in the OU Business School. The team have been developing their expertise in contemporary policing in recent years, in response to the professionalisation agenda, driven by the College of Policing.

There are two areas within the Department for Policing. One area of focus is teaching and the development of formal accredited learning, with a suite of policing programmes that are delivered with police forces. This includes the development of the Police Constable Degree Apprenticeship (PCDA), following the introduction externally of the Police Education and Qualification Framework (PEQF). As part of this investment, a team of interdisciplinary academics developed this new accredited curriculum. This then led to the development of Degree Holders Entry Programme (DHEP) and Police Community Support Officer (PCSO) programmes. Subsequently, the Department for Policing has been co-designing and co-delivering these programmes, along with the Special Constables programme, for over 5 years.

The other element of the Department for Policing is the Centre for Policing Research and Learning (CPRL) which was originally established in 2015 and has been successful in building relationships with twenty-six police service organisations in the areas of research, informal learning, and knowledge into practice. The ethos of CPRL is to develop collaborative research that is police-led and impacts directly on policy and practice.

Student Profiles in Business and Law

The student profiles for both business and law reflect those mentioned earlier in relation to the OU; however, the breakdown below illustrates the particular profiles in relation to ethnicity and disability of both schools.

Data obtained in 2024 illustrate the breakdown of the student population for business and law. As shown in Table 1.1, 28% of the student population for business declared themselves as ‘other ethnicity’, whilst in law it stood at 23%. In 2023, 17% of UG business students (FTE) and 18% of PG business students (FTE) declared non-UK nationality, representing 133 countries worldwide.

Table 1.1 Ethnicity: law and business students

Nationality (declared) 2023–2024	*White British*	*Other ethnicity*	*Prefer not to say*	*Unknown*	*Total*
Business	8593	3349	222	27	12,191
Law	6658	2074	169	16	8917

Table 1.2 Disability: law and business students

Disability	*No declared disability*	*Declared disability*	*Total*
Law	6422	2495	8917
Business	9984	2207	12,191

In relation to disability, Table 1.2 reflects the numbers of those students who declared a disability (2023–2024). As can be seen, 28% of law students declared a disability, compared to just 18% in business.

Examining figures over the last four years in each school, 28% of the students that studied law declared themselves to have a disability. In business, numbers were lower, at 22%. As stated earlier, these numbers are significant and reflect the need for learning materials that are fully inclusive and accessible to all.

The Chapters

The volume begins with an introduction into the context of higher education and digital teaching within it as the book's editors, Jacqueline Baxter, Andrew Gilbert, and Helen Selby-Fell, offer an account of the exponential rise of digital learning since the pandemic and the rising levels of competition in relation to this. Within the chapter, they also describe rising levels of work intensification and performativity, rendering working conditions ever more challenging for staff working in the field. The chapter includes a discussion on the rise in interest in SoTL (the Scholarship of Teaching and Learning), in digital learning, particularly on campus-based universities (digital SoTL has been in evidence for many years in those universities that were already largely digital), and how SoTL can help business and law schools to retain their currency in a rapidly changing operating context.

Part I of the book, **Teaching Students in the Digital Environment**, examines differing aspects of the student experience. Beginning with one of the most contentious areas of education today, Liz Hardie, Frances Ryan, and Jacqueline Baxter offer an account of a state-of-the-art literature review GAI (generative artificial intelligence), in Chapter 3. In examining the ethical, legal, and IT risks posed by the widespread use of AI (artificial intelligence), but also the considerable opportunities offered by the medium, they offer a broad overview of the many elements to be considered in relation to incorporation of GAI into the curricula of business and law. Considering the opportunities presented by generative AI for students and educators, the study also discusses ways in which ChatGPT can be used as a personalised study tool and for student support. In addition, the team examine how educators can, using AI, prepare students for future employment in a transforming world of work, where generative AI is already a feature of legal practice and the business workplace.

From there we turn to one of the most substantial barriers to digital learning—digital poverty—as Jacqueline Baxter and Matt Hinton examine what is meant by digital poverty and what it means for HE (higher education) students. Chapter 4 explores the challenges that students facing digital poverty encounter in accessing online learning resources, participating in virtual classrooms, and engaging in remote academic activities. The chapter also discusses potential solutions to address digital poverty's effects on higher education, emphasising the importance of policy interventions, institutional support, and collaboration between various stakeholders. Through analysis of existing literature and organisations looking to combat digital poverty, this chapter sheds light on the urgency of mitigating digital poverty to ensure equitable access to higher education and promote academic success from an inclusive perspective.

Digital learning offerings integrate a number of activities, designed to engage, promote, and assess student learning. But do students actually enjoy and find these activities productive? In the first of our empirical chapters, Chapter 5, Sarah Henderson and Ben Trupia-Melluish look at the use and value of digital interactivities as a means of engaging level 1 business and law students. Using data gathered from a questionnaire and focus group discussions, the chapter explores which activities students engage with and what kind of barriers they feel hinder their learning at this level. Alongside other chapters in this book, their findings help to

build a bank of knowledge on effective learning strategies for students and inform academic decision making for learning design.

In Chapter 6, we move from a module to programme level approach as Alessandro Saroli examines skills development in the BA (Honours) Business and Management degree qualification. In so doing, he explores how the development of cognitive, professional, and key skills is embedded in learning design at both module and qualification levels. Findings from the study discuss to what extent these activities are engaged with by students and how this then impacts on learning outcomes. The chapter illustrates how a broad overview at programme level is not only useful for the particular programme but applies to other disciplines and programmes, widening out impact and reach.

In the concluding chapter of section one, Chapter 7, Jennifer Norman, Jo Lambert, and Lee Partridge adopt a case study approach to examine how recent education reform in policing in England and Wales impacts on police education. In so doing, they examine the professionalisation of the police, along with the changing role of police-academic partnerships and the importance of organisational readiness, in order to deliver significant reform outcomes. The study is important in outlining the approach to managing collaborative curriculum delivery, and the challenges of this, via collective responsibility and evolving practice which aims to address challenges and ensure a student-centric approach to learning.

From there we turn to **Part II of the book,** which examines various elements in relation to supporting students in the digital environment. Beginning this section, Liz Hardie and Carol Edwards use Chapter 8 to examine a challenging area in digital learning: how to decrease isolation and develop a sense of student belonging in the digital environment. Focusing on a project introduced in the School of Law, the project aimed to reduce student isolation, increase motivation, and develop a sense of students' belonging to a community.

Chapter 9 continues the theme of student belonging in tackling an underexplored area: care experienced students and looks at how best to support them. Grace Allen, Sarah Henderson, and Joanna Mirek-Tooth argue that students with experience in care are less likely to enrol at university and more likely to face challenges such as low self-esteem and confidence, feelings of isolation and issues around belonging. The authors give account of the particular challenges the team faced in accessing this particular group of students and reveal some important insights for interventions and support for this group of students.

Further developing the theme of inclusion, in Chapter 10, Francesca Calo, Aqueel Wahga, Isidora Kourti, Fulvio Scognamiglio, and Gizem Kutlu take the challenging area of the award gap for minoritised ethnic students, in their extensive literature review which examines cross field existing interventions to address the gap, along with their dynamics. In so doing, they examine what initiatives and mechanisms should be implemented in order to address the awarding gap and provide fully inclusive educational offerings.

Employability is a key issue for law and creating situations that mirror real life experience is one of the most substantial challenges for learning design in the digital environment. In Chapter 11, Emma Curryer and Carol Edwards explore a digital innovation which incorporates clinical legal education into the law curriculum by means of a Criminal Justice Clinic (CJC). In so doing, they explore how CJC is designed to further social justice by assisting clients who state they have been wrongly convicted of serious criminal offences and to provide students with employability skills required in professional legal practice. This important project is unique in aiming to teach students legal professional skills when working on difficult cases in a digital only setting. The chapter gives insights into learning design in law in a digital environment where the CJC is wholly based online. It covers how and why the CJC was created and the importance of employability skills to students participating in such a project.

Chapter 12 returns to policing as Abigail Salter, Amanda Smith, and Steve Moss evaluate the use of reflective practice as a tool to assess learning on a work-based learning module in the Police Constable Degree Apprenticeship (PCDA). The team discuss their findings based on a thematic analysis of semi-structured interviews and focus groups with a cross-section of police officers and staff involved in the delivery of different elements of the apprenticeship programme. The chapter provides valuable insights into how reflective practice is understood, and how it can be used within a work-based learning programme.

In the penultimate chapter, Chapter 13, Nicoleta Tipi returns to the challenge of applying learning to real-world scenarios by examining the creation and implementation of simulations in the form of games, in the field of supply chain management. Employing a critical approach to the use of games and simulations in this field, she provides a fully-worked example of how such simulations can be created, whilst also exploring

why tutors and students may not engage with them, and how this can be mitigated.

In the concluding chapter of the book, Chapter 14, we look back over the evolving landscape of digital learning and teaching, particularly focusing on higher education's transition amid technological advancements and global challenges. Through a critical analysis of current practices and future directions, the chapter calls for a balanced approach to embracing technology whilst maintaining the integrity and inclusivity of educational practices. This synthesis not only reflects on the history and futures of digital education but also advocates for a conscientious integration of technology to enhance the educational landscape.

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CHAPTER 2

Where Are We Now with Digital Teaching? Critical Reflections on Digital Teaching and SoTL in Business and Law

Jacqueline Baxter, Andrew Gilbert, and Helen Selby-Fell

Truths: both fake and real
Surely universities
Are the place to learn

(haiku form, Jahajeeah, 2023, p. 219)

Introduction

The post-pandemic era has led to myriad changes to society and higher education as an integral part of society. Remote teaching emerged from the pandemic as business as usual, often for institutions that had either

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never employed it before, or merely tinkered around the edges. As these HEIs (higher education institutions), moved into the world of digital teaching, a preoccupation with methods and skills has arisen: For example, a leading journal in the field, *Teaching and Learning Inquiry*, saw a 150% rise in new submissions from 2021 to 2022. As those of us that have taught digitally for some time are well aware, digital teaching is not the same as doing it face to face; it presents challenges, not only for students, (Baxter, 2012b) but for academic identities too (Baxter et al., 2023; Baxter, 2012a). As these changes have emerged, so too has the climate into which they are received, as the links between HE and employability have been emphasised in the ultra-competitive marketplace that is the reality for much post-16 educational institutions (Watermeyer et al., 2021).

There are many that argue that the move to digital has provoked work intensification, lack of agency and 'hyper instrumental reasoning', that serves to, 'hermetically situate faculty and students within a fetishized discourse of efficiency' (Giroux, 2021, p. 5). A paper by Watermeyer et al. (2021) points out that the pandemic has had a profound effect too on the operation and running of universities, highlighting, and further entrenching, 'the historical inequalities in the distribution of power in universities and the inability of academic communities to meaningfully address these' (Watermeyer et al., 2021, p. 1). They coin the term 'pandemia' as a way to articulate the form of disaster capitalism that prompted many universities to plunge headlong into digital learning, as business as usual, without much thought for the effect on staff and students.

These thoughts echo points made, several decades earlier, around the concerns with digital learning, in terms of inclusion and the academic role, in particular within the plethora of research on academic identities (Baxter, 2011; Litto, 2002). In addition, the concerns around inclusion, equity, and the impact of digital poverty on the HE experience also influence implementation of digital learning. (Baxter & Hinton, 2024, Chapter 4 this volume).

For business and law schools, this has created unprecedented challenge in relation to a rise in the mental ill health of students and employees,

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cost rises, and a decline in alumni/donor giving rates (Krishnamurthy, 2020). This, combined with the growth of AI (artificial intelligence) and ChatGPT, creates both challenge and opportunity for both disciplines (see Chapter 3 this volume, Hardie et al., 2024).

Notwithstanding these challenges, the move to digital has also given rise to a great deal of innovation and an interest in the Scholarship of digital Teaching and Learning (SoTL). This chapter examines the particular contexts of digital teaching in business and law and the role of SoTL within this. It begins with an examination of the current challenges and opportunities for business and law schools, before moving on to an examination of what SoTL actually means. The final part of the chapter examines the role of SoTL in business, law, and society, concluding with a summary of how SoTL can help schools to retain their currency within the societies in which they are placed.

Challenges for Business and Law Schools

Business Schools

The growth of business education over the past 60 years has been substantial, with more than 16,000 business schools operating worldwide (ACCSB). Yet, according to Collinson, Chair of the Chartered Association of Business Schools, in 25 years' time, many will cease to exist, or, if they do exist, they will have radically changed their operating models (Collinson, 2023). In the UK, there are 130 business schools which teach more university graduates than any other subject area and are responsible for attracting one in three of all international students studying in a British university (Collinson, 2023; Marginson & Van der Wende, 2007). Their economic contribution is substantial—they contribute an estimated £13 billion to the UK economy and are major sources of income for universities (Collinson, 2023; IFFS, 2020).

But their credibility and legitimacy are both in question, as they confront myriad challenges which require constant strategic adaptation and innovation. In an era of rapid technological advancement, evolving student expectations, and a changing global business landscape, these institutions must address several critical issues to remain relevant and effective in preparing future business leaders (CABS, 2021).

One of the most pressing challenges facing business schools is the need to stay current with technological advances. Faculty members and

administrators must not only keep up with the latest innovations but also develop curricula that reflect the practical application of technology in business (UNESCO, 2020). The advent of artificial intelligence, big data analytics, and automation has significantly altered the business landscape, and business schools need to equip their students with the skills and knowledge required to thrive in this new environment. Research carried out by AMBA (the Association of MBAs) in 2020–2021 reported that 91% of business school leaders have increased the amount of digital or online learning opportunities since the start of the COVID-19 pandemic, 85% conducted lectures using virtual teaching technology, 61% offered flexible timings for delivering programmes, and 59% increased the capacity of teaching related to emerging technology and innovation, in 2020 (AMBA, 2021).

In addition to threats posed by technology (and concomitant opportunities), the dominant position of business schools is, according to a report by CABS (CABS, 2018), under threat. According to this report, the plethora of academic papers produced in response to policy drivers such as REF has, in the view the Chair of CABS, 'overtaken the drive to solve real-world problems' (Collinson, 2023), with journalists, consultants, and social media influencers rapidly lining up to fill this vacuum.

Diversity and inclusion have rightly become paramount concerns in business education. As the business world becomes increasingly globalised and diverse, it is essential for business schools to reflect this reality in their programmes. Promoting diversity in faculty, staff, and student populations can enhance the learning experience and better prepare students for a diverse and inclusive workforce. This links to the changing nature of student expectations: Students often seek experiential learning opportunities, flexibility in course formats, and a focus on ethical leadership and sustainability. Business schools must be agile in adapting their programmes to cater to these evolving expectations, fostering innovation in teaching and curriculum development, and future proofing their offering in order to stay ahead of the competition.

Additionally, accreditation and ranking pressures exert significant influence on business schools. Many schools are compelled to align their programmes with accreditation standards and rankings criteria, sometimes at the expense of their unique missions. This can lead to a homogenisation of business education and hinder the pursuit of innovative pedagogical approaches.

Another key challenge at postgraduate level is the ongoing debate on the value of an MBA degree. With rising tuition costs and concerns about the return on investment, business schools must continually demonstrate the value they provide to students and employers. This necessitates a focus on outcomes, such as job placement rates, salaries, and alumni success, as well as providing opportunities for practical experience and networking.

In short, business schools are facing a complex and dynamic landscape with technological, diversity, student expectations, accreditation, and value-related challenges. To remain effective, they must embrace innovation, adapt their curricula to meet the evolving needs of students and the business world, and foster diversity and inclusion. These schools need to strike a balance between meeting external expectations and maintaining their unique identities to continue delivering high-quality business education.

The Department of Policing (situated in the Business School) responded to the 'professionalisation agenda' (College of Policing, 2016) and the subsequent move to integrate degree education into the UK police service by introducing a suite of new degree programmes. In 2016, the Police Education Qualification Framework (PEQF) was introduced in England and Wales, stipulating that all new entrants to the role of Police Constable must hold degree level education, which has required UK police forces and HEIs to jointly deliver. The training and education of police officers is a much-debated topic across the world (Cox & Kirby, 2018) and the introduction of the PEQF has presented various challenges. The commitment and investment involved in designing and implementing the new education reform has been significant for all stakeholders. There are continuing challenges surrounding the reform in terms of the readiness of organisations (Williams, 2020), cultural buy-in for change, and a shift in pedagogic approaches to meet the collaborative nature of the curriculum (see Chapter 7, this volume). Furthermore, the shifting political discourse regarding police education in the UK, has presented further issues, and police education reform remains in flux and challenging for all stakeholders involved.

The Department of Policing has facilitated a professional development programme for academic staff to raise awareness and understanding about the concept and benefits of SoTL. In addition, staff have been encouraged to engage in SoTL research through incentives and recognition, linked to promotion processes, which has been identified as a facilitator to fostering

interest and awareness, and to building a supportive institutional culture (Baxter et al., 2018).

SoTL is ideally placed to not only investigate current challenges, but promote innovation in business schools. In the penultimate section of this chapter, we explore this aspect. But before that, we turn our attention to some of the challenges facing law schools.

Law Schools

'The subject of legal education is one which has aroused singularly little interest in England in recent years and the general professional attitude to it is one of complacent apathy', so began the inaugural lecture of Laurence Gower at the London School of Economics in January 1950 (Gower, 1950, p. 137). Much has changed since then: Law schools in the United Kingdom, especially in England and Wales, are currently navigating a series of challenges that are reshaping the legal education landscape. These challenges are multifaceted, stemming from regulatory changes, technological advances, the evolving demands of the legal profession itself, and generally trying to improve outputs and outcomes with a declining unit of resource. In addressing these issues, law schools must balance maintaining high educational standards with the necessity to adapt and innovate. The scholarship of teaching and learning has much to contribute to this task.

One of the most significant challenges comes from the controversial and contested introduction of the Solicitors Qualifying Examination (SQE) in 2021 (e.g. Mason, 2018; Waters, 2018). This new pathway to qualification as a solicitor in England and Wales has altered legal education and training. Law schools are now tasked with integrating SQE preparation into their curriculums or making a strategic decision not to, requiring a shift from the traditional Legal Practice Course and Graduate Diploma in Law. This transition demands substantial curriculum development and resource allocation to adequately prepare students for the SQE assessments, which cover both legal knowledge and practical skills. The pass rate in the four SQE1 sittings since November 2021 has been around 53% but this masks significant disparities between ethnicities, with pass rates at 66% for white candidates, 49% for Asian/Asian British, and 34% for Black/Black British (Solicitors Regulation Authority, 2023). Concerns have been raised and the SRA is investigating the disparity. Someone once said that justice in England is open to all—like the Ritz Hotel—and the

same might be said of its law schools. But what does it matter if the experience of students when they get there is vastly different (Adebisi, 2020), and how can SoTL help us to make that experience more equitable?

Improving student outcomes across legal education remains a persistent challenge, and the awarding gap suffered by minoritised ethnic students has been the subject of extensive scholarship, as discussed by Calo et al. in Chapter 10 (this volume). The high cost of legal education, coupled with the competitive nature of securing training contracts or pupillages, discourages students from less affluent backgrounds. Nevertheless, law schools are perhaps now more diverse than ever before. In 2020–2021, there were 142,330 law students at UK universities, of which two-thirds were female, 64% were of white ethnicity, 17% Asian and 9% Black, 42% were aged 20 and under, and 15% declared a disability. By contrast, of the subset of part-time students (32,060 of the 142,330) who are more likely to be studying digitally online, 74% were white, 11% Asian and 7% Black, 63% were 25 or over, and 18% declared a disability (Higher Education Statistical Agency (HESA), 2023). Part-time students, by definition, are more likely than their full-time counterparts to have substantial employment or caring commitments, or both. Digital legal education can therefore play a significant role in widening participation for underrepresented groups, but we know this comes with challenges around access to digital resources, as Baxter and Hinton explain in Chapter 4 (this volume), and around developing a sense of belonging and supporting students to stick with their studies through to successful completion, as Hardie and Edwards demonstrate in Chapter 8 (this volume). This is where SoTL proves invaluable in creating the necessary knowledge to enable the flourishing of academic communities and the individuals that inhabit them.

The marketisation of HE has led to an emphasis on employability; as Tomlinson writes, 'It now appears no longer enough just to be a graduate, but instead an *employable* graduate' (Tomlinson, 2012, p. 415, his emphasis). A discipline-specific response of law schools to enhancing employability has been in the form of law clinics. From 1994, when there were about 8, to 152 in 2022, university-based law clinics offer legal advice and support to the public while providing clinical legal education to students (LawWorks, 2023). All law clinics will be digitally enabled to some extent, whether through case management systems or online legal databases, but the Open University Law School operates a number of fully digital law clinics offering advice to the public wholly online. Law

clinics present opportunities to promote social mobility through developing the social and cultural capital of law students (Gilbert, 2022), but their learning design needs careful thought, as explored in Chapter 11 (this volume) by Curryer and Edwards.

While technology enables innovative teaching methods, such as virtual reality moot courts (simulated courtroom) and online law clinics, which can enhance student engagement and learning experiences, the rapid pace of technological advancement presents both opportunities and challenges for law schools more broadly. Law schools must invest in digital infrastructure and upskill tutors to effectively use these technologies. Additionally, there is a growing expectation for law graduates to be proficient in the latest developments, requiring law schools to integrate legal technology education into their programmes (Ryan & McFaul, 2020). Undoubtedly, as Hardie, Ryan, and Baxter discuss in the next chapter, GAI (generative artificial intelligence) is in the process of transforming what and how we teach, and insights from SoTL will be crucial to inform learning design in law schools and beyond.

Law schools face a complex array of challenges that require innovative solutions and strategic planning. Adapting to regulatory changes, harnessing technological advancements, addressing market competition, improving outcomes across legal education, and aligning with the evolving demands of the legal profession are critical for sustaining the quality and relevance of legal education in the UK. These efforts—in which SoTL has a central role to play—are essential not only for the success of law schools and their graduates but also for the future of the legal profession itself.

What Is SoTL in the Context of Digital Teaching?

In 2022, five members of faculty at Harvard published a paper on why active learning in an undergraduate course often dies a slow death in the classroom. Although the study received much attention on social media, engaging practitioners in passionate discussion in relation to its contribution to their own practice, others pulled it apart, failing to see its relevance and deriding it for 'not being proper research' event though it was methodologically sound (McMurtrie, 2022). Although SoTL has grown exponentially over the past 30 years, many faculty members remain untouched and unconvinced by this work, unsure of how to apply it to their teaching, or sceptical of its value. This is no less the case in

both business and law schools, and despite the best efforts of discipline-specific organisations, such as the British Academy of Management or the Association of Law Teachers, the fact still remains that there are many practitioners who simply do not see its relevance to their own teaching practices.

There have been myriad reasons proposed by various scholars for this lack of engagement: From the framing of academic contracts to deep convictions that teaching and learning are all about tacit knowledge on 'what works', gained over a period, on how people teach and learn. What is often not mentioned in the literature on SoTL is that it is an area that provokes strong emotions either for or against and that there are many things that need to be considered in order to implement effective digital learning, as this book bears witness.

The role of universities and institutional narratives on SoTL can be a double-edged sword; universities are mindful of the potential of evidence-based teaching to aid innovation and provide a competitive edge in relation to their offerings. This can have a positive effect, for example, the funding of SoTL seedcorn projects, and the provision of workload allocation for academics to carry out this work. However, this support can prove divisive in encouraging certain types of SoTL—the type that boosts student revenue—and discouraging other projects, precisely because they adopt a critical position in relation to certain university 'grand narratives'. As Davies and colleagues point out, 'the policy language surrounding technology enhanced learning [often] embodies a simple economic calculation: in exchange for use of technology there will be enhanced forms of learning' (Davies et al., 2017, p. 12 in, Baxter et al., 2018, p. 16). This approach, in an age where academic freedom is constantly under threat, can and does put off individuals who may otherwise engage. As the fields of business and legal education are intrinsically linked to societal and economic buoyancy, SoTL, carried out in these disciplines, is all the more vulnerable to manipulation by grand narratives.

Since (and before) COVID-19, many former fully campus-based business and law schools have adopted digital teaching and learning as a core element within their practices. Studying law and business online offers several advantages. First, it provides flexibility, allowing students to balance education with work or other commitments (Bates, 2019). Digital programmes often offer a wide range of courses and specialisations, granting access to diverse knowledge (Bower, 2018).

Moreover, there is evidence that this mode of learning promotes self-discipline and time management, crucial skills for legal and business professionals (Smith & Kano, 2020). The digital format fosters global networking opportunities and access to international academics, enriching the learning experience (UNESCO, 2020). It reduces costs associated with commuting and campus housing, making education more affordable.

In relation to inclusion, digital learning in business and law has the potential to extend educational access to disabled students, provided that accessibility is built into the learning design (Amponsah & Bekele, 2022; Seale, 2013). Provided that this is achieved, it enhances participation and equity, enabling individuals with disabilities to pursue higher education. However, digital poverty is a real and pressing issue that limits potential in this area, as Baxter and Hinton report in Chapter 3 (this volume).

Different Interpretations of SoTL

In late 1990, Princeton Professor Ernest Boyer authored a book that was seminal in defining what scholarship actually is. Within it, he explored how the use of faculty time is rewarded, and what activities of the professoriate are most highly prized (Boyer, 1991). In so doing, he opened one of the many 'black boxes' surrounding the whole area of not only what is scholarship, but perhaps more importantly, who does it and how is it used? In his opening lines, he summed up the challenge:

> the work of the professor becomes consequential only as it is understood by others. Yet, today, teaching is often viewed as a routine function, tacked on, something almost anyone can do. When defined as scholarship, however, teaching both educates and entices future scholars, indeed, as Aristotle said, 'Teaching is the highest form of understanding.' (Boyer, 1991, p. 45)

Since then, there have been several responses to this paper, most notably in 2015 (Kern et al., 2015), who built on this work to examine what SoTL means. Within their study, they identify a range of taxonomies that describe what SoTL is, ranging from, what works, what is, visions of the possible and new conceptual frameworks, to research articles, inspiration, and systematic reflections (Kern et al., 2015, p. 3).

What Is Scholarship and Innovation in Digital Teaching and Learning?

Leadership teams, both faculty and university, often promote the term 'innovation' when speaking about SoTL. But, as Wolff et al. point out, in relation to digital learning, 'there is no unified or agreed upon definition of innovation, either as a device or as a process' (Wolff, 2008, p. 28). In 2016, Kopcha et al. carried out a study exploring the meaning of the term, innovation, in digital teaching and learning, interviewing faculty members in the USA and using a Q sort method to explore values attached to innovation in digital teaching. The statements ranged from, for example, 'it is merely a way to impose technology on teaching without regard to its impact on learning' to 'it involves a willingness to take risks' (Kopcha et al., 2016, p. 950). Although the work is now more than 10 years old, the results are still valid today, particularly in those campus-based institutions that are rapidly introducing digital learning into their curricula. The results found that participants held four distinct perspectives of the term, and categorised respondents into types according to their beliefs: (a) Deeper Understanders; (b) Big Picture Reflectors; (c) Deeper Purpose Seekers; and (d) Teaching/Technology Schism-ists. Their results are illustrated in Fig. 2.1.

As the diagram (Fig. 2.1) illustrates, the Deeper Purpose Seekers are influential in both advancing and rejecting digital learning. If they are able to find a way forward with digital teaching, feeling comfortable in its capacity to align with their particular teaching beliefs and philosophies, then they are more likely to embrace it. Similarly, the Big Picture Reflectors too are likely to adopt this approach. As illustrated, both types of teacher are unlikely to be seduced by the thought of novel software or trying new products, as both are likely to be seen as gimmicks that may or may not align with the way of teaching. This raises questions about how learning design is approached in universities. Presenting design teams with games, tools, and other accoutrements of digital learning is likely to fail if the teams have not yet considered the content of their new offering, and the pedagogies that will align with that content (Baxter, 2023b). Of all of the categories in this paper, the Deeper Understanders are most open, according to the study, to integrating new software and tools into their teaching, in order to promote deeper understandings. This also presumably includes the deeper understandings based on real-world problems encountered in business and law.

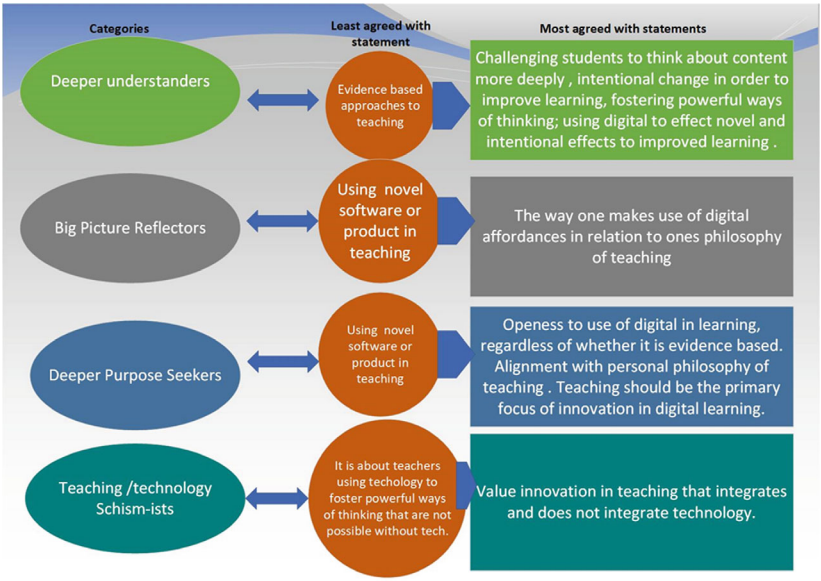

Fig. 2.1 Categories for understanding and interpreting innovation in digital education (Adapted from Kopcha et al. [2016, pp. 953–954])

SoTL and Innovation

It is also interesting that, in the same paper study, the term 'innovation' is not always conflated with evidence-based teaching, which raises a question around the link between SoTL and innovation. A more recent paper into perceptions of SoTL (Canning & Masika, 2022) investigates similar notions, this time interviewing eight educational developers in UK-based HEIs. The paper asks a number of questions regarding institutional understandings and implementation of SoTL. A key theme emerging from this study was a 'strong confusion about the range and scope of the term 'SoTL' amongst those with teaching and learning leadership positions' (p. 9). These confusions tap into previous concerns raised about the way in which SoTL has become an umbrella term, used for everything from inquiry-based practice to public, peer-reviewed research (Fanghanel et al., 2016; Frake-Mistak et al., 2020; Potter & Kustra, 2011). This paper also raises the issue of the sheer range of narratives that refer to SoTL as part of 'business as usual'; for example, professional development, the

professionalisation of university teaching financial buoyancy, competition, research, reflective practice… and so the list goes on.

Another reason why SoTL is so devalued in many institutions is that it is carried out without reference to other, similar work in the field. This is particularly the case when academics' main research interests lie elsewhere, and pedagogic research is carried out on the margins of their time and with little awareness of the field itself (Canning & Masika, 2022; Myatt et al., 2018). In including this type of research as 'SoTL,' we risk undermining the field itself, particularly when this type of research is not disseminated, either within or outside of the institution (Fanghanel, 2013; Felten, 2013). Further confusion arises when those carrying out this work are rewarded by teaching prizes (Canning & Masika, 2022). This becomes even more of a minefield when scholarship appears in promotion tracks but is still largely undefined. While the concept of SoTL remains undefined in HEI policy documents, it requires an immense amount of work on the part of educational developers and those tasked with SoTL implementation to quality control the type of work that comes under this umbrella. This, too, has cost implications: Funding work that neither relates to anything in the field, nor has any hope of being disseminated is arguably a waste of resource, when university funds are stretched to the maximum particularly when it does not lead to any type of capacity or career building (Baxter, 2023c). But institutional leaders are enmeshed in a complex web of conflicting narratives, and SoTL is all too convenient a narrative that can be appropriated to resolve a whole host of wicked issues such as quality assurance, defining teaching and learning excellence and answering to external policy drivers (Baxter, 2023c; Webb & Tierney, 2019).

Because SoTL is often thought of in association with teaching, rather than research, this too gives it less currency in relation to institutional hierarchies in which research is valued over teaching (Canning & Masika, 2022; Fanghanel, 2013; Hubball et al., 2010). As Canning and Maska point out:

> Typically, institutional strategies are influenced by the wider environment, [...] driven by new managerialism and marketisation paradigms […] where SoTL can be a bridge but is diluted and muddied by strategic actions treating research and teaching as separate tracks requiring different outcomes. (Canning & Masika, 2022, p. 15)

SoTL in Business, Law, and Society

There are many good arguments for developing SoTL in a discipline-specific manner, not least the furthering of the discipline, encouraging reflection on teaching styles and strategies, and enhancing the reputation of the subject (Healey, 2000). However, the teaching of business, law, and indeed, any other vocational subject, is not done in isolation, but deeply rooted in the society and culture in which it is taught. For example, the Chartered Association of Business Schools underscores the importance of business education, asserting that it 'provides the skills and knowledge that underpin economic and social prosperity' (www.chartered abs.org). In addition, business schools aim to equip students with a deep understanding of management, entrepreneurship, and economics, thereby contributing to a well-rounded workforce capable of fostering innovation, driving economic development, and adapting to evolving market dynamics.

The legal domain in the UK relies heavily on universities for the cultivation of legal professionals, with law schools being instrumental in shaping individuals into competent lawyers who uphold the principles of justice and the rule of law. As Lord Neuberger, former President of the UK Supreme Court, states, 'Law schools are the crucibles where aspiring lawyers acquire the ethical foundation, legal expertise, and critical thinking skills necessary to maintain a just and orderly society' (Elliot, 2013).

The interdisciplinary nature of business and law as disciplines is key in fostering a holistic understanding of complex societal issues, enabling graduates to approach real-world problems with a multidisciplinary perspective, contributing to evidence-based decision-making, ethical leadership, and the responsible conduct of business and legal affairs. Educational institutions play a pivotal role in shaping future leaders, driving innovation, and maintaining a just and prosperous society. Both subjects are taught against a background of hypercomplex problems, which must be integrated into the preparation for both if the teaching is to be effective. This places SoTL in an interesting position. What do we want SoTL to achieve in relation to the disciplines and also the public good?

Conceptualising problems as 'wicked' has been the response of a number of disciplines for some time now. The concept of a 'wicked' problem was originally proposed by Rittel and Webber (Rittel & Webber,

1973), in relation to policy issues that, by their very nature, are unresolvable within the context of a single discipline. Their definition of such a problem is described in Fig. 2.2. Latterly, this concept has been proposed by the SoTL community, (see, for example, Seeley, 2022), who suggest that SoTL should be focusing on the wicked problems that emerge from fields: The Grand Challenges for SoTL. The example given in Seeley (2022), attrition in healthcare teaching, is a powerful one, illustrating how, drawing on an analysis of data from a regional study of healthcare students at nine institutions in the northwest of England, the research team developed a framework to identify problem sources and solutions, which was then used to facilitate discussions with all stakeholders (Hamshire et al., 2019). This is a similar approach to group model building (Vennix, 1999), in which stakeholders offer their perspective of issues in order to create feedback loops between different aspects of the problem (Baxter & Ehren, 2019). The advantage of taking this approach to SoTL in business and law is in making manifest and explicit its links to society and the teaching of business and law *within* society (although these are implicit in much SoTL that is carried out in the field).

Starting off with these wicked issues very often implies a more constrained approach, as this volume reflects. Issues arising at module level can very often be endemic, arising across whole programmes, such as Henderson and Trupia-Melluish report in their study (Chapter 5, this volume). This can then lead to the question of whether similar issues are being reported across this and other programmes, in both business and law. Expanding the question from there, the wider issue could examine what these results mean for the teaching of business and law at undergraduate level. This would necessitate bringing together stakeholders in both law and business to explore what the results may mean for them.

Building SoTL in this way expands its remit way beyond the academy providing real opportunities for knowledge exchange and societal impact and reaching out to all stakeholders in the process. This links back to the former discussion on innovation, placing it in a much wider context. If SoTL leads to innovation in curriculum and methods, then it works with every level of Bloom's taxonomy in relation to learning and teaching and innovating within worlds (Bloom, 1956a, 1956b). As the taxonomy illustrates, SoTL can inform at any stage of the taxonomy and, in viewing it through this lens, can be easily understood in relation to its contribution to the institution, the disciplines, and wider society (Baxter, 2023a) (Fig. 2.3).

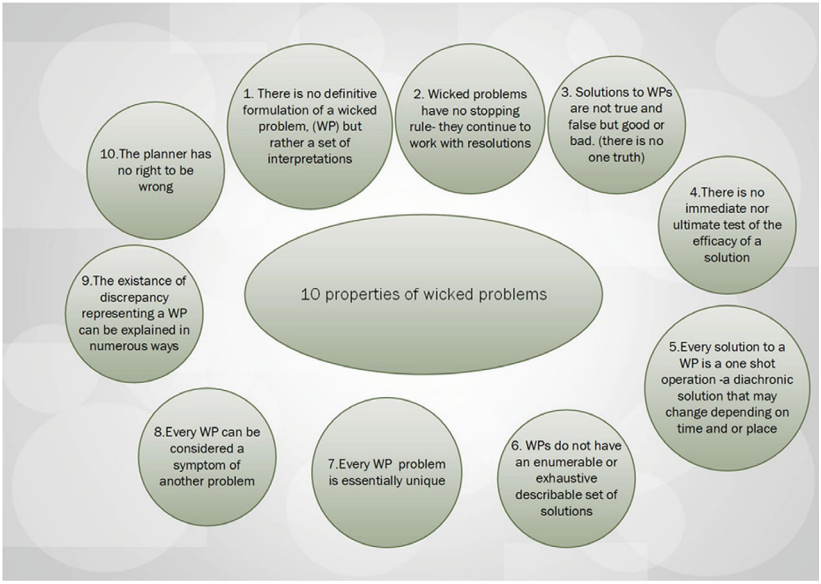

Fig. 2.2 Properties of wicked problems (Adapted from Rittel and Webber [1973, p. 11])

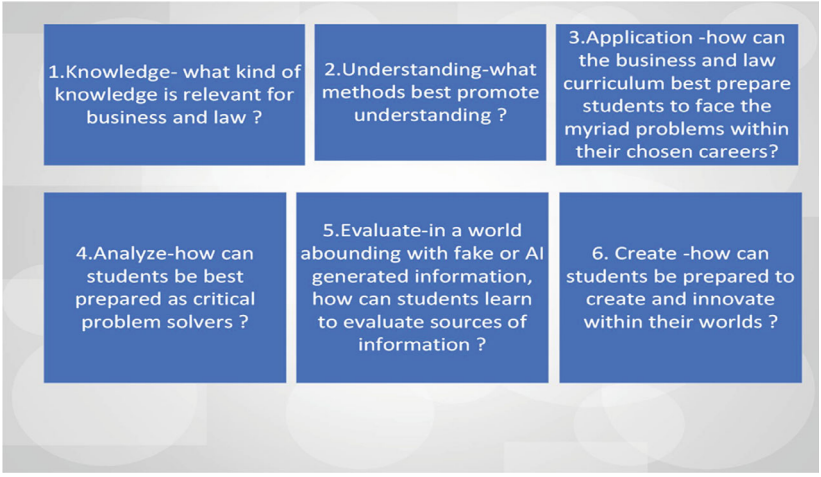

Fig. 2.3 Bloom's taxonomy applied to SoTL in the fields of business and law

This brings us back to what can be classed as SoTL in the field of business and law. Building on discussions that have occurred over the course of the past 30 years, we would argue that in order to be SoTL, results of any investigations must be shared. How they are shared is another question. Kern et al. (2015), in their 2015 response to Boyer, class SoTL according to a model, DART (Dimensions of Activities Related to Teaching), as:

- **peer reviewed, presented or published empirical material**
- **meta-analysis**
- **textbook**
- **published essays on teaching, with references**
- **published case studies (p. 5).**

Other activities are classed as: Scholarly teaching, Practice of teaching, and Sharing about teaching. Of these three categories, for us Sharing about teaching is the most contentious, containing as it does, the following categories: published curriculum, state of education essay, shared teaching portfolio, presentation or publication of teaching tips, newspaper or magazine article and blogs on teaching. We would argue that blogs and newspaper articles, provided they include links to published material, are in fact SoTL, in the same way as public blogs, containing simplified findings of research projects, are now classed as an important element of academic KE (knowledge exchange) and impact. A good example of this is to be found within the publication, The Conversation, with its easily trackable statistics on readership, downloads, etc. In the same way, the Kern et al. category 'scholarly teaching' occurs, according to their paper, 'when faculty ground their teaching practice in the scholarly literature, beginning with a particular issues or problems, but then moving to exploring the current relevant research' (Kern et al., 2015, p. 6). The distinction being that this activity *uses SoTL* rather than carrying it out. However, the use of SoTL is surely an important precursor to the *carrying out of SoTL*? In summary, we feel that this model creates rather artificial dichotomies in relation to the *outputs of and preparation for* SoTL. Such distinctions only serve to confuse an already confusing area.

As with any field, the field of SoTL must necessarily carve a path to credibility and, to date, institutional priorities—prestige that comes

with high-profile grants, impact, and KE—have and still are rendering SoTL a lesser type of research, in all its forms. The lack of prestige often also incentivises people that are interested in knowledge and evidence-based teaching to keep their projects to themselves, applying them in a small way, to individual modules, and rarely evaluating their longer-term impact. This genre of project is not always crafted in an ethically robust manner, due to time constraints, or, in the case of business and law, a lack of knowledge around research approaches, due to lack of the relevant research training.

In order for business and law schools to be able to state that they found their teaching on evidence, that evidence must be crafted in the same way as any other evidence, with robust methodology, sound ethical basis, and with a view to being shared in order to further the discipline. This does not necessarily mean that such research will always further the broader field of SoTL, as the context and culture of the research will also be important, rendering it, in some cases, only applicable to that particular discipline or that particular country. However, in relation to a furthering of the teaching of business and law, and its place within society, it is a vital and valuable contribution to the evolution of learning and teaching in relation to both disciplines in the societies in which they are situated.

Discussion Points

1. What influences the way you design your learning? Think about how these influences shape your offerings.
2. How could engagement with SoTL help to shape academic identities, particularly those of practitioners who have recently made the move to academia?
3. How could your department or university encourage a community of SoTL practitioners?
4. How can students become active participants in SoTL, informing and engaging with the process and outcomes?

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CHAPTER 3

Every Truth Has Two Sides: The Impact of ChatGPT on Law and Business Education

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Introduction

Since November 2022, a significant amount has been written about generative artificial intelligence (GAI), its impact, and whether it results in a paradigm shift in education. Despite the rhetoric and the fear, it is becoming clear that GAI has both benefits and risks for higher education. As Aesop stated in his famous fables, 'every truth has two sides; it is as well to look at both, before we commit ourselves to either' (1866, p. 29). Based on a state-of-the-art literature review, this chapter highlights the impact of GAI-tools such as ChatGPT on law and business students and academics. It suggests ways academics might 'mitigate the risks and

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double down on the opportunities' posed by GAI (Baroness Martha Lane Fox, Chancellor of the OU cited in McCallum, 2023).

This chapter does not require any technical knowledge of GAI. Artificial intelligence (AI) is not new, and elements of AI such as machine learning have existed for decades. GAI is AI that generates new and original content. Large language models are a type of GAI that communicate using human language. GAI generates content such as text, video, music, computer code, or combinations of media that closely resemble human content (Farrelly & Baker, 2023, p. 1110). It does this by training the model to learn the latent structure and distribution of a given data set or training materials (Goodfellow, 2014 cited in Walczak & Cellary, 2023, p. 73). Each output generated will be bespoke, rather than copied from other sources, and the output may be amended and refined through further instruction, or prompts.

Whilst the potential benefits of GAI are significant, it also poses challenges that need to be carefully addressed to ensure that education remains relevant and effective in the rapidly changing digital landscape (Walczak & Cellary, 2023, p. 72). To assist academics to navigate the positive and negative impacts of GAI, this chapter will explore some of the opportunities and challenges which arise when using it. The chapter starts with an explanation of its methodology, before exploring the development of GAI, how it works, and why it is likely to impact on education. It considers both the benefits and risks of incorporating GAI into education.

There are substantial challenges in writing this chapter in early 2024, less than 18 months after the first GAI-tool was launched and widely adopted. As is the case with any innovation, it is not clear how pervasive or commercially viable GAI will become; whether the current free tools will remain or it becomes so expensive it can only be used by large companies (Budhwar et al., 2023, p. 614). This is an emerging field, with the technology and its capability developing rapidly. In addition, the academic literature in peer-reviewed journals is small but growing. Academics are grappling to understand and stay ahead of their students' use of GAI, and strategies to teach GAI skills and implement the tools within teaching are still in an embryonic stage, with a lack of robust evidence-based evaluations. Any suggestions about the future use of GAI within higher education must be tentative. Nevertheless, we hope that a better understanding of GAI and the opportunities and the risks it poses will assist academics in working through the implications of GAI for their teaching practice.

Methodology

This chapter is based on a literature review of sources discussing GAI and education, with a specific focus on legal and business education. Adopting the typology of Jesson et al. (2011, p. 15), a state-of-the-art review was conducted to bring 'readers up to date on the most recent research on the subject'.

The approach used was less prescribed and more fluid than a systematic review, following the method used by Farrelly and Baker (2023) and Grassini (2023). Keyword searches were made across 586 databases. The keywords used were 'GAI', 'education', 'legal education', and 'business education'. No date parameters were set for the search, which was carried out in December 2023. The abstracts of the first 200 articles were sorted by relevance and then scanned to select the articles which discussed the impact of GAI upon learning and teaching, with a specific focus on law and business studies. Articles were excluded if they concerned school or further education, teacher training, education in disciplines other than law and business, or issues other than teaching and learning. Additional articles were added using citation searches of relevant key articles.

Given the early stages of the academic literature around GAI and education, the most up-to-date information and commentary are often located in blogs and online articles, as these can be published more quickly than peer-reviewed journal articles. Whilst peer-reviewed journal articles were prioritised, 'grey literature' published outside conventional publication channels was also considered and included where relevant, with due consideration being given to its provenance, reliability, and objectivity.

The final selection of 54 articles was critically analysed to identify key themes about the development of GAI, the impact of GAI on education, the benefits or opportunities of using GAI in business and legal education, and the risks of using GAI in in business and legal education.

There are limitations in the approach adopted, as a state-of-the-art literature review does not cover everything that has been published or written, and there may be gaps (Tight, 2019). The selection of articles as relevant and the subsequent identification of themes is also dependent on the perspective and expertise of the authors. To mitigate these limitations, a full explanation of the methodology used and criteria adopted has been included above.

What Is GAI?

Whilst GAI burst into public consciousness in 2022 with OpenAI's introduction of ChatGPT3.5 (a freely available chatbot), GAI has a long history dating back to the 1950s. Early AI research concentrated on creating rule-based systems, which carried out tasks according to a set of established rules (Wach et al., 2023). In the 1960s, models were developed which generated sequential data such as speech and time, and these were enhanced in the 1980s by the development of machine learning algorithms which allowed AI systems to learn from data and enhance their performance over time (Cao et al., 2018).

Improvements in the performance of GAI in 2010s were due to a 'convergence of factors' (Walczak & Cellary, 2023, p. 72). The introduction of more complex neural networks led to the generation of impressive new samples across different fields (language and images) (Cao, 2018). The availability of large data sets to train the models, advances in deep learning algorithms and ever-increasing computational power that enabled GAI models to learn underlying patterns with a higher degree of accuracy, led to the production of novel outputs with 'remarkable accuracy and quality' (Walczak & Cellary, 2023, p. 72).

As noted above, much of the discussion and debate around GAI has focused on ChatGPT, a large language model made freely available to the public in November 2022. OpenAI started work on its first version of ChatGPT in 2018, followed by GPT2 in 2019, GPT3 in 2020, ChatGPT3.5 in 2022, and GPT4 in March 2023 (Budhwar et al., 2023). The version made available in 2022 was ChatGPT3.5, which used reinforcement learning with human feedback as a way of reducing false information, harmful and offensive content which had been generated by ChatGPT3 (Budhwar et al., 2023; OpenAI, 2023a). Each model has been trained on larger data sets—GPT3 (or 3.5) was trained on 175 billion parameters (around 570 GB of data and 300 billion words), whilst it is estimated that GPT4 was trained on a large multiple of the previous version (Ajevski et al., 2023). These very large training data sets enable the model to generate outputs which are highly realistic and accurate. However, it is also a limitation, as the source of the training data is unknown, nor can the algorithms explain how the responses were generated (Budhwar et al., 2023).

ChatGPT is designed as a conversational chatbot that answers questions on any subject using natural language in a conversational style.

It has been trained on its large data set to predict with high probability the next word in the sentence given the context of the previous words (Ajevski et al., 2023). As a language model, it can write text in multiple styles and languages including writing documents (letters, emails, reports), explaining ideas and concepts, suggesting ideas, having a conversation, completing assignments, playing games, translating text, summarising, or extracting data from a text, generating scripts, writing or de-bugging code, or creating apps. From October 2023, it also analysed and generated images following the incorporation of a GAI image generation programme, DALL-E3 with ChatGPT (OpenAI, 2023a). It also now has a feature called Browse with Bing that links GPT4 to the web; however, it is not a database or reasoning tool. GAI outputs are based on probabilities: there are no checks on the accuracy of its text and results can include errors or hallucinations (where it invents facts). For example, Google shares lost $100 billion due to an inaccurate response from Bard (Google AI's chatbot) on Twitter during a demonstration in February 2023 (Thorbecke, 2023).

When ChatGPT3.5 was released in November 2022, it acquired one million users in five days and reached 100 million users two months later (Lim et al., 2023). By way of comparison, to reach 100 million users took TikTok 9 months, Instagram 2.5 years, and Facebook 4.5 years. ChatGPT gets over 1.7 billion page visits to its website each month and has over 180 million monthly users and 100 million weekly active users. 55% of users are male and 45% are female. Of particular interest to higher education institutions, 65.5% of users are aged 18 to 34 years and 30% are typical university-aged students (18–24 years) (Shewale, 2024).

Whilst most attention has focused on ChatGPT, there are other GAI models which have been launched including Microsoft Copilot™ (which is built into Microsoft Edge™), Google's Bard™ (which is planned to be built into the Google internet search tool), GitHub Copilot ™ (which is integrated into Microsoft applications), Claude 2™, Jasper Chat™, Llama 2™, and many others. Tools such as DALL-E3 (which is now incorporated as part of ChatGPT4), Midjourney, and Stable Diffusion generate images. There are also plug-ins available which allow users to use GAI models for other purposes such as mathematics and science.

GAI is being embedded into other commonly-used academic and office-based tools. As well as internet search engines and Microsoft Office 365™, it is being incorporated into legal research platforms. Lexis has introduced Lexis™+, and Thomson Reuters has developed Westlaw

Precision™ (LexisNexis, 2023; Thomson Reuters, n.d.). It will become increasingly difficult to distinguish between applications using GAI and those which do not, particularly regarding internet searches and grammar and spell checkers. It therefore 'becomes difficult, almost paradoxical, to draw a line beyond which the use of GenAI becomes academically unacceptable' (Yeralan & Lee, 2023, p. 111).

Universities are implementing policies to govern the use of GAI, with an array of institutional responses described by Xiao as 'waiting, banning and embracing'. Their analysis of the top 500 universities (according to the 2022 QS World University Rankings) found that less than one-third had implemented ChatGPT policies; however, 70% of those universities were in English-speaking countries including the USA and UK. Of those which had policies, approximately 67% embraced ChatGPT in teaching and learning (Xiao et al., 2023).

The Impact of GAI on Law and Business Education

This chapter now turns to focus on the impact of GAI upon law and business education. Whilst there are macro high-level positive and negative impacts (see, for example, Stahl & Eke, 2024), we will focus on the way in which large language GAI-tools are likely to affect the way law and business are taught and the ways in which students learn. This is a complex picture for several reasons. The pace of technological change makes predictions about the future use of GAI difficult; GAI is improving at an exponential rate, so what follows constitutes some reflections from the literature about the potential of these tools. Emerging technologies create a complex web of technical, pedagogical, ethical, commercial, sociological, and political concerns, and it is likely to take further time to fully understand the wider implications of how these impact upon the use of GAI within higher education (Yeralan & Lee, 2023). However, we hope the following reflections assist in developing your understanding of how GAI can be incorporated into your teaching, and how to address some of the challenges.

Using GAI in Education

It is unrealistic to think that universities can prohibit the use of GAI, as students are already using GAI in their assessments, and it is extremely difficult to detect its use. In addition, they will need to use GAI in

their future careers and banning its use would not serve the student in the longer term, nor prepare them for employment in a world in which GAI is used as part of business as usual (Johnston et al., 2024). The QAA's guidance on GAI reinforces the importance of teaching students the responsible and ethical use of GAI. They note that employers will expect (and value) graduates familiar with GAI-tools when they enter the workforce, and it is therefore important to ensure students are aware of the limitations of these tools and the importance of their ethical use (QAA, 2023b). There is an opportunity for law and business academics to consider how they will re-design assessment, improve accessibility, and think innovatively around how GAI-tools can offer additional support to students. However, to do this, there needs to be a consideration of the challenges posed by GAI along with its potential.

Challenges of Using GAI Within Teaching

Student Use of GAI

As can be seen from the statistics on the usage of ChatGPT, there is a growing awareness of GAI; it is freely available and is being adopted increasingly by the younger (university-aged) demographic. Students are entering higher education already familiar with and using GAI, and this is likely to increase once the tools become embedded within commonly-used applications such as Microsoft 365™ and other office suites (Moorhouse et al., 2023). In response to this, UCAS, for example, has issued guidance and provides tips on using GAI in writing personal statements (UCAS, 2024). Internationally, governments have recognised the need for AI literacy programmes from sixth form (16–18 years) for some time now (UNESCO, 2019). This has coincided with AI broader strategic planning in several countries such as the USA, China, and Germany (Laupichler et al., 2022; Ng et al., 2021), and early empirical studies report on its integration in both primary and secondary teachings (Ng et al., 2023). Some pilot schemes such as 'AI for the Future' in Hong Kong (Chiu et al., 2023) and the DAILy Curriculum from the USA have been developing AI literacy for secondary student for the past 5 years (Chiu et al., 2023). Moreover, various approaches such as digital story writing (Ng et al., 2023), experiencing AI through toys and robotics (Chiu et al., 2023), and visualisation tools (Garcia & Pacheco, 2013)

have been introduced internationally, to support young children to learn about the possibilities of AI at an early age.

In the UK, the International Baccalaureate has agreed students can use GAI-tools within its qualification, appropriately referenced (International Baccalaureate, 2023). At the time of writing, the Department for Education's most recent policy document states that schools should 'teach students how to use emerging technologies, such as GAI, safely and appropriately' (Department for Education, 2023). Further details of what this looks like in practice have not yet been released, but it appears that students will be introduced to this technology during their school years and some research studies are already examining how this may work (Jauhiainen & Guerra, 2023).

Much of the evidence on students' use of GAI is presented in the grey literature. For example, Varsity reported that nearly half of the 400 respondents at Cambridge University in the UK admitted to using ChatGPT in their studies (Hennessey, 2023), whilst BestColleges claimed that 20% of the 1,000 American college student respondents admitted the same (Welding, 2023). One study into the possible use of GAI by students in a university computing science department found that between 2022 and 2023 there was an increase in the number of students flagged as using GAI material in their assessments, although the levels were lower than anticipated (Richards et al., 2024b). They argued that this is indicative of students using GAI-tools to assist in writing their assessments (Richards et al., 2024b).

The awareness and access to GAI-tools mean, 'there is no credible means of banning access to generative artificial intelligence' (Drysdale & Stokes, 2023). Luo (2024) argues that the current institutional policy approach to GAI in assessment, one that focuses on the originality of students' work and places higher value on individually produced work as opposed to AI-supported work, is problematic. The risk is that students may become reluctant to use GAI even when it is appropriate for their learning, and students who choose to use GAI to support them in their assessments and learning could be considered less able (Luo, 2024). Given the widespread use of GAI in both business and law, it is important that students are equipped with the skills to use it responsibly in order for qualifications to retain their currency in a rapidly changing market. But it is also important for academics to be cognisant of the complexities around defining originality when GAI is integrated into tools such as Microsoft

Office™. As technology continues to advance, the literature suggests that AI-assisted writing is going to become the new norm (Luo, 2024).

Academics Cannot Detect the Use of GAI

There is limited research around students' use of GAI in their assessments but emerging themes in the literature suggest students are using GAI as a study aid, to assist with spelling and grammar and to help understand concepts and ideas (Johnston et al., 2024). However, given the accessibility of these tools there will be students who will use them for assignment completion and this poses challenges in the detection of AI-generated content. Large language models offer a unique answer to a prompt in a variety of different styles. They can provide individual answers to a variety of different assessment types (Ajevski et al., 2023). Small-scale research to test the effectiveness of GAI in answering assessment questions suggests that GAI answers often receive a passing grade (Ajevski et al., 2023; Choi et al., 2023; Richards et al., 2024a). However, as each answer is generated individually rather than copied directly from other sources, there are concerns that existing detection mechanisms can no longer reliably identify scripts which have been artificially generated (Richards et al., 2024b). There are also fears about the possible skill gaps this leaves for students who are approaching assessments in this way; skill gaps that may not be detected until the student leaves the university, thus impacting on their employability.

Several companies have developed software which claims to be able to distinguish between text written by a human and that which has been generated by AI, including OpenAI™ and Turnitin™. However, these companies have subsequently warned that the efficacy of these tools is low, and they produce false-negative and false-positive results (Farrelly & Baker, 2023). Large-scale research on the efficacy of GAI detection tools has not yet been published, but Farrelly and Baker (2023, p. 112) concludes that available information suggests that it is impossible to reliably detect content generated with the assistance of AI, especially if it is adapted from the original AI output. Concerns have also been raised that these detection tools falsely identify text written by non-native speakers as generated by AI (Liang et al., 2023).

As GAI develops, so do detection tools. This has led to comparisons of an 'ongoing arms race between plagiarism detectors and AI technology' (see, for example, Grassini, 2023, p. 6697). JISC's GAI primer warns

academics that no AI detection tool can conclusively prove that text was written by AI; that the tools produce false positives and are not able to differentiate between legitimate and other use of AI writing tools (JISC, 2023a).

If academics are not able to reliably detect the use of GAI by students, to a standard where action can be taken in the case of academic malpractice, it is neither feasible nor desirable to ban the use of GAI. The literature indicates that students should rather be taught how to properly use the technology and reference it appropriately. However, there needs to be clarity around how GAI can be used by students. If institutions lack consistency around the ways in which GAI can be permitted, there is likely to be confusion among students leading to challenges for academics around assessment and learning. Current literature suggests that GAI is being employed by students in a variety of different ways: ranging from clear instances of malpractice (such as the fabrication of data and generation of assessments), through to potentially beneficial uses (such as assistance with design and planning or highlighting grammatical and spelling errors). Detectors are unable to differentiate good from bad usage and therefore become 'effectively useless as soon as any use of GAI is allowed' (Ardito, 2023, p. 8).

Positive Reasons for Embracing GAI Within Teaching

Employability Benefits for Students

Higher education has a responsibility to teach students employability skills alongside knowledge and understanding of a specific subject. The QAA Quality Code has at its core the expectation that all higher education providers support all students to achieve successful professional outcomes (QAA, 2023a). One of the biggest opportunities in embracing GAI within teaching is to enhance students' employability skills, and this emerges as the most convincing rationale for its use, within the literature, as described below.

Following the rapid adoption of GAI from 2022, Baker (2023) suggests that navigating and functioning in the future without AI skills is comparable to getting by without computer skills and internet access in today's world. As well as jobs directly involving AI (such as the training of AI systems [Wach et al., 2023]), an ability to use GAI responsibly and

ethically now features in graduate employment positions (Grassini, 2023). A 2023 study by Goldman Sachs estimated the legal profession had the second highest exposure to replacement by AI automation in the USA, with 44% of tasks susceptible to automation. Business/financial operations and management had an estimated 35% and 32%, respectively, of tasks susceptible to replacement by GAI (Hatzius et al., 2023, p. 7). Current research in business reports that GAI is becoming an essential element within most functional areas of the public, private, and third sectors (Chen et al., 2020; Li & Wang, 2020; Loureiro et al., 2021).

In law, AI is being incorporated into legal work, with technology-assisted review of disclosure, automated document creation, and the inclusion of GAI into legal databases and tools such as Harvey™, a custom large language model GAI-tool for elite law firms. Legg and Bell (2019, p. 35) suggests that whilst AI may remove the need for human lawyers to undertake some aspects of the lawyering process, it will not entirely replace lawyers. Lawyers will need to be able to use emerging tools to enhance their professional practice, and also to supervise, question, and interpret Al results.

In business, GAI-tools are being used within professional office software and integrated in banking and finance applications. They are also being used in marketing and advertising as well as human resource management (Baker, 2023; Budhwar et al., 2023). Students will need to understand this technology and have the skills to use it effectively in order to compete in the future job market. Grassini (2023, p. 701) goes further in suggesting that it is plausible that in the future, students without training in AI-tools could find themselves at a competitive disadvantage in the job market compared to those peers who have had extensive exposure and practical experience of these tools.

Teaching students how to employ GAI in a consistent and ethical manner raises several challenges for law and business schools. These include re-design of assessment strategies, re-conceptualisation of skills agendas, and a fundamental shift in the whole notion of what it means to teach with AI (Getchell et al., 2022; Riapina, 2023). There is a need to embed teaching about GAI within education as an employability skill, but there also needs to be an open discussion around the limitations and risks posed by GAI. Such discussions will also enable academics to take a leadership role in defining the scope and boundaries of its use (Yeralan & Lee, 2023). In addition, there needs to be open dialogue with students to understand their perspectives on the skills they need for their

future career, skills which technology cannot replicate (such as skills of complex reasoning and interpersonal skills) (Ajevski et al., 2023). There is an important role for the Scholarship of Teaching and Learning (SoTL) to explore which AI-tools are needed most and why.

An Opportunity to Re-design Assessment

As already discussed, GAI poses challenges to university assessment processes due to the difficulty associated with distinguishing between text written by a student and that generated by AI. Some commentators have linked this more positively to the possibility that GAI may encourage—or require—academics to rethink assessment. There are suggestions that more traditional forms of assessment such as essays should be replaced with those that require students to demonstrate more critical thinking skills (Lim et al., 2023; Zhai, 2022) or to use GAI in their assessments (Luo, 2024). Other commentators have called for the introduction of authentic assessments where students apply their academic knowledge in real-world settings (Swiecki et al., 2022). GAI offers academics an opportunity to review their assessments and think more innovatively on how they test the knowledge and skills required for the course's learning outcomes.

An Opportunity to Improve Accessibility and Provide Additional Student Learning Support

HEIs have a duty to provide reasonable adjustments for students with a disability, in order to provide a fully inclusive offering. There are suggestions that GAI may support academics to remove barriers and improve accessibility for such students. Morris (2019, p. 1), for example, makes several suggestions including real-time captioning for people who are hard of hearing, whilst Botchu et al. examine the way that enhanced versions of Chat GPT-4™ can be a 'game changer' for people with dyslexia (Botchu et al., 2023, p. 2). However, the use of GAI in this way is in its early stages and there are at the time of writing no substantial empirical studies that demonstrate its effectiveness.

The literature also suggests that GAI offers the opportunity to provide additional, personalised support to students (Grassini, 2023) with the most common suggestion that GAI can be used as a study buddy or personalised tutor. An important benefit of this is that students can ask

questions and receive instant answers, including at times when tutors are not available. Suggestions of the types of tasks these models could provide include the provision of feedback (particularly on written material to improve writing skills), the creation of practice exercises and quizzes to test understanding, and the provision of step-by-step questions and solutions to aid problem-solving skills. In addition, students could be offered personalised guidance and feedback during discussions to aid collaboration skills, and the use of Socratic questions and answers to improve knowledge, critical thinking, and the development of arguments (Lo, 2023; Rahman & Watanobe, 2023). Grassini (2023, p. 4) notes that this could extend beyond the relevant subject discipline with GAI acting as personal mindset coaches to support students to 'uncover the beliefs, blocks, behaviours, habits and patterns of thinking' that prevent them from achieving their study goals (Mindset Coach Academy, n.d.).

GAI offers the possibility of analysing students' performance to make personal recommendations for improvement, as well as customised resources and learning activities (Alqahtani et al., 2023; Rahman & Watanobe, 2023). It also offers the possibility of differentiating the teaching and activities provided depending on the student's current level of understanding and personal learning style (Drysdale & Stokes, 2023; Grassini, 2023). At the time of writing, these suggestions are still in the early stages of adoption, and there is no research to evidence the impact on learning.

An Opportunity to Support Academic Work

There is the potential use of GAI by academics to enable more routine tasks to be completed more efficiently to reduce workloads. This will free up time to be used in different ways such as crafting innovative lesson plans, engaging in professional development, and offering personalised coaching and mentorship to students (Grassini, 2023). Additionally GAI might be used to develop teaching resources to enable more interactive communication and more engaging classroom activities (Grassini, 2023) but as yet these suggestions are relatively untested.

Some of the literature suggests GAI could be used in marking and providing feedback on student assessments, which could save academics significant time, provide more consistent and systematic grading, provide feedback to students more efficiently (as the task would be completed

more quickly), and provide data analysis on student performance (Alqahtani et al., 2023). However, there are few studies in the literature on the value and the efficacy of AI-based grading tools (Grassini, 2023).

The Risks of Using GAI in Education

The literature identifies several limitations of current GAI models; therefore, academics need to be aware of these issues and how to mitigate against them. At the time of writing, there are five main issues identified: accuracy and reliability, lack of transparency, the exacerbation of awarding gaps, data protection and copyright, and the impact of overreliance on GAI-tools: we explore each in turn in what follows.

Accuracy and Reliability

Concerns highlighted most frequently in the literature are those regarding the level of accuracy and reliability of information provided by large language models. These models operate by predicting the next word in a sentence: they do not assess the validity or truth of the information they provide, and the outputs can be inaccurate or unreliable.

One of the most well-known issues is that large language models can *hallucinate* or make up facts and information. Fern University describes this as 'texts that are stated with certainty but are nonsensical or not based on the information from the training text set' (2023, p. 3). These can be difficult to detect without foundational knowledge of the subject, as they are often intertwined with accurate information and conveyed in a persuasive and self-assured manner (Walczak & Cellary, 2023). Such hallucinations can include incorrect facts, references, and sources (for example, invented statutes and cases in legal queries). Whilst these instances of hallucinations may decrease as the capabilities of the large language models grow, they are unlikely to be completely eliminated due to the way in which these models work and their inability to reason or verify the information provided. It is therefore important that students are educated about these limitations and understand the need to carefully scrutinise and rigorously fact-check GAI outputs (Walczak & Cellary, 2023).

In addition to hallucinations, the models may also provide inaccurate information due to the limitations of their training materials. Their output is based on the materials used to train their systems, and whilst the

exact composition of such materials is usually unknown, we do know that normally they comprise vast quantities of text obtained from the internet. The information contained within this unpolished, raw data may not be objective or accurate and any issues and errors will be replicated in the outputs of the models (Grassini, 2023).

Finally, many AI systems are trained on data which is captured up until a certain date, and such data may have limited information about recent events (Lo, 2023). But that is changing: ChatGPT4™ can now browse the internet (Radford & Kleinman, 2023), and Microsoft Copilot™ is integrated into the Microsoft™ web browser. Access to current information will therefore vary according to which large language model is used. It is important users are aware of this as it will affect the accuracy and reliability of information provided in relation to more recent events.

Lack of Transparency

The source of the training data used by large language models is proprietary and unknown. This means that outputs cannot be linked back to a specific source (Fern University, 2023). This is problematic in higher education, where students are educated to look for, evaluate, and use reliable sources. Students must be made aware of the fact that the use of GAI-tools as a source of information within academia, even when permitted by university policy, lacks authority and rigour. Alternative, more reliable sources should be found to evidence any points identified by large language models.

In addition to a lack of clarity over the training data, there is also a lack of transparency around how the algorithms work. Different AI systems operate using different algorithms, as well drawing on different data sets. This means that different GAI systems can produce different results to the same query. For example, Yu and Ali (2019, p. 3) compared the results obtained by inputting the same legal search into six different tools and discovered that there was a wide variety of sources and information provided. In addition, due to the deep learning of the tools, they can self-reprogram to the point that even their programmers are unable to understand the internal logic behind AI decisions (Yu & Ali, 2019). Due to the lack of transparency over how information is generated, it is difficult for users to assess the impartiality, reliability, and accuracy of the tools or their results.

Exacerbating Awarding Gaps

The second most cited concern about GAI-tools is the effect these tools may have on certain cohorts of students, and the potential for inequality which may widen existing awarding gaps. Since the early 2010s, student-led movements have called for a diversification of the voices included within curriculum, in relation to race and ethnicity, LGBT+, disability, and socio-economic background. Many institutions have taken action to address these concerns, implementing Access and Participation Plans to try and close the awarding or attainment gaps. It is important in legal and business education to ensure that the use of GAI-tools does not further exacerbate awarding and belonging gaps.

Concerns have been raised that the use of GAI might undermine this work, due to potential bias in their outputs. The algorithms used by large language models were largely written by white men and reflect their viewpoints and assumptions (Budhwar et al., 2023). As the training data has been taken from the internet, it is most likely to have been sourced from affluent English-speaking countries or more traditional texts which fail to address global perspectives (Grassini, 2023). This lack of diversity in the training data potentially leads to outputs which preference a white, male viewpoint, which could result in unfair or discriminatory outcomes (Wach et al., 2023). This is likely to disenfranchise people whose languages are different from English and compromise the model's ability to assess contributions written by students from other backgrounds (Budhwar et al., 2023; Grassini, 2023). Bender et al. (2021, p. 614) warns that in accepting large amounts of web text as 'representative' of 'all' of humanity we risk perpetuating dominant viewpoints, increasing power imbalances, and further extending inequality. Students need to be aware of the potential biases in the outputs of GAI models, and there is greater urgency for academics to present students with a diverse range of viewpoints in their teaching so that any dominant GAI perspective is counterbalanced.

As well as concerns about bias within the models themselves, there are issues around access to these tools. Whilst most large language models were initially free, many companies have now introduced subscription models. There is concern that students from lower socio-economic groups may not be able to access premium versions of the tools, therefore exacerbating structural inequalities and digital poverty. At the time of writing, ChatGPT3.5™ is available free to users, but ChatGPT4™ (which

is a significantly better model) requires a $20 per month subscription (JISC, 2023b). Comparisons of the two versions consistently show that ChatGPT4™ outperforms the earlier model. There is therefore a significant risk of creating further digital inequity where those who have access to the latest models have an advantage over those who do not (Farrelly & Baker, 2023; Wach et al., 2023). QAA have recognised this, warning that institutions that fail to ensure all students have access to the same GAI-tool may exacerbate existing attainment gaps (QAA, 2023b). If academics are teaching the use of GAI in legal and business education, careful consideration will need to be given to ensure all students are on an equal playing field with regard to accessing the same tool, to prevent inequalities.

Data Protection and Copyright

Given the rapid development of GAI, the legal regulation of the technology is still developing, with concerns about risks relating to data protection and copyright. According to OpenAI, conversations with ChatGPT are recorded and analysed to improve the model's performance, presumably by using any inputs within future training data (Schade, n.d.). However, the specifics of the storage and use of these conversations are unclear (Grassini, 2023). Some tools do allow users to choose a privacy mode, but it is unclear as to the extent to which this prevents material being subsequently used. There is therefore a risk that any information entered into a tool becomes part of its training data, raising issues regarding student data and personal information as well as copyrighted educational materials. Both academics and students need to be aware of this and be mindful about the information they input into the tools in the form of prompts.

The ownership of the output from interactions with large language models is also unclear, as discussed in Ajevski et al. (2023). There are associated issues surrounding the lawfulness of using data generated from copyrighted material within the training data (Ajevski et al., 2023). OpenAI's submission to the House of Lords Communications and Digital Select Committee (2023b) confirmed that it would be impossible to train today's leading AI models without using copyrighted materials, and so business and law students need to be aware of the risks of outputs containing copyrighted material.

Overreliance Leading to a Skills Gap

The final concern about using GAI within higher education was mentioned earlier and is that in encouraging student use, students will not develop and hone their skills, which could lead to a skills gap among graduates. There are concerns that an overreliance on GAI could lead to a decline in writing and critical thinking skills (Moorhouse et al., 2023). Sætra (2023) referred to the risk of 'cognitive atrophy' (p. 3), suggesting GAI's impact on writing skills will be similar to the impact on mental arithmetic of the calculator. Business and law academics will need to carefully design activities and assessments to ensure students can develop and use key graduate skills, as well as the digital skills needed to use GAI. Students also need to be cognisant that they will miss out on critically important skills and learning if they delegate all their writing to large language models (Rudolph et al., 2023).

Conclusion

Ignoring, or banning, GAI in higher education is not feasible given its availability and its integration into operating systems such as Office and the workplace. Moreover, as we have discussed, failure to teach GAI risks students being disadvantaged in their future careers as they will lack essential employability skills. There is a growing consensus that the most appropriate strategy is to teach students how to use GAI-tools responsibly and ethically. The QAA's current recommendations emphasise the need for clear communication and engagement with students (QAA, 2023b). However, it is argued this should go beyond technical instruction on how to use the tools; it must involve ensuring students are aware of the underpinning technology, how the tools work coupled with the limitations and risks. It is essential that students understand that generated outputs can be biased or based on partial data, out-of-date knowledge, or contain incorrect or fake information. Students need to verify the veracity of the information provided and corroborate it with reliable authoritative sources (Grassini, 2023; Lo, 2023). Cultivating this healthy scepticism towards GAI outputs and emphasising the importance of critically analysing sources will also develop students' critical thinking skills (Walczak & Cellary, 2023, p. 96). It also enables a discussion with

students around the human skills they bring to their future career which technology cannot, such as complex reasoning and interpersonal skills (Ajevski et al., 2023).

Tips

It is imperative that academics learn how to use GAI to integrate it within their teaching. For academics looking to teach or incorporate GAI within their teaching, the following suggestions may be of assistance:

- Understand your institution and school's policies on GAI use; if GAI is permitted, teach students how to cite the use of the tools.
- Think carefully about which tool you will use, considering whether it will be available to all students (including those from lower socio-economic groups).
- Ensure all those using GAI understand how it works, its limitations and mitigating action required, particularly around biased and false information.
- Ensure that you teach students how to critically evaluate the outputs by themselves.
- Set out guidelines about what can be entered into the tools as prompts, to maintain data protection and copyright.
- Ensure there is opportunity for students to demonstrate a full range of skills, and emphasise to students the importance of developing and using these skills rather than relying on GAI.
- Consider the inclusion of experiential learning pedagogies into teaching and learning that support the use of GAI-tools.
- Review assessments to consider whether they are still appropriate given the use of GAI-tools.
- Ensure you understand the way in which GAI is being used within relevant employment sectors and prepare students for this.
- Make sure you stay up to date regarding GAI and its impact on teaching, given the rapid developments and emerging research in this area.

Discussion Points

- How do we differentiate between GAI use for learning and GAI use in assessment?
- How do we adapt to the reality of GAI use by students?
- As adoption rates increase, GAI will fundamentally change the way businesses and the legal industry works. How do we best prepare our students for an increasingly complex world of technology and work?
- How do we collate rapidly emerging knowledge in order to aid learning design in real time?

Further Reading

For those interested in finding out more about GAI, Pam Baker's 'ChatGPT for dummies' (2023) is an accessible introductory book, as is JISC's 'Generative AI – a primer' (2023). Moorhouse's 2023 article 'Generative AI tools and assessment' provides a useful oversight into the work of various universities in re-designing assessment to reflect GAI developments. UNESCO's 'ChatGPT and Artificial Intelligence in Higher Education: Quick Start Guide' (2023) provides a useful overview of the different and varied ways GAI can be used to enhance higher education.

In addition, the HEA (Advance HE) have recently developed a repository of case studies on the use of GAI in HE; this can be found at: Advance HE AI Garage (https://advance-he.ac.uk/ > Membership > Generative AI: Beyond Assessment > AI Garage).

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CHAPTER 4

Digital Poverty in the UK and Its Impact on Higher Education: A Human Rights Approach

Jacqueline Baxter and Matthew Hinton

Introduction

The rapid evolution of digital technologies has transformed various aspects of contemporary life, including education. Higher education institutions have increasingly turned to online platforms, digital resources, and remote learning environments to provide flexible and accessible education. However, this shift has exposed a deep divide—the digital poverty gap. Digital poverty, a term gaining traction, refers to the inadequate access to necessary digital devices (such as computers and smartphones) and reliable internet connectivity. Before the global COVID-19 pandemic, issues relating to digital poverty in education were often either ignored or acknowledged in a piecemeal way. But the pandemic placed the stark realities of digital poverty and its effects on higher, and education more broadly, firmly in the public eye. Forcing both local and national

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initiatives in relation to policy and action in combatting digital inequalities (Seah, 2020). We begin this chapter by exploring the term 'Digital poverty' and how it is understood in the UK context.

The evolution of digital poverty is not a phenomenon that occurs in isolation: the UK is widely recognised as being one of the most geographically unequal economies among the OECD (Organisation for Economic Cooperation and Development) (OECD, 2021). This, alongside regional economic inequalities have, over the last 20 years, contributed further to digital inequality across the UK (Stansbury et al., 2023). Research highlights the correlations between digital exclusion, social exclusion, poverty, and health inequalities (Academy, 2022). Progress in this regard has been slow The UK Government's 2022 Levelling Up Strategy, digital connectivity—nationwide gigabit-capable broadband and 4G coverage by 2030, with 5G coverage for the majority of the population (Gov.UK, 2022), has still not, by and large, given rise to a great deal of progress. While the reasons for this are multifarious, during a webinar by the Digital Poverty Alliance, a social enterprise, (Deloitte, 2023), reported that over a million people in the UK have cancelled their broadband contracts since the Bank of England raised interest rates, following the disastrous and short premiership of Liz Truss, as Matt Adam, speaking at the Digital Poverty Alliance Webinar, reported in 2023 (Adam & Kulmie, 2024). In addition, before the peak of the cost-of-living crisis (2022–2023) and across UK households

- 12% do not own a PC or tablet;
- 6% are not connected to the internet;
- 6% struggle to pay for fixed home broadband; and
- 5% struggle to pay mobile bills (Alsop, 2020).

However, as the British Academy's, 2022 report points out (Academy, 2022), there are other elements of digital poverty which also need attention such as access, uptake, and investment. In this chapter, we follow the definition of *digital inequality*, within the report, and also that used by The UK Digital Poverty Alliance, to refer to disparities in, 'levels and types of digital access, digital skills, usage, and outcomes' (Digital Equity Foundation, 2019, Academy, 2022, p. 5). These aspects align with what research terms 'three levels' of the digital divide: 'poor access to digital technologies (first level), poor digital literacy and skills (second level) and

a reduced ability to exploit digital resources and transform it into tangible social benefits (third level)' (Academy, 2022; Gov.UK, 2022; Seah, 2020; Williamson et al., 2020).

Also in line with the British Academy report, the term 'digital exclusion' is used throughout, to refer to those people in a population who are excluded in some way across the three levels of the digital divide, while 'digital inclusion' is generally used to refer to initiatives that aim to create digital equity and give everyone the opportunity to use digital technologies to enhance their lives (Academy, 2022).

Digital poverty is the result of a complex interplay of socio-economic factors. It is often rooted in income inequality, geographic location, and structural disadvantages. Low-income households often struggle to afford the necessary technology and internet plans, leading to limited access. Rural and remote areas frequently lack the necessary infrastructure for reliable internet connectivity, further exacerbating the problem. Moreover, disparities in education, including digital literacy skills, can contribute to a cycle of digital exclusion. Figure 4.1 illustrates the causes of digital poverty in the UK today. A further concern is that in assuming the household as a stable concept, these figures underestimate the impact on unstable, transitory and traveller households where poverty is often felt the most acutely.

The Digital Poverty alliance (https://digitalpovertyalliance.org/), a UK-based organisation that aims to combat digital poverty and whose stated aim is to, 'End digital poverty via a UK-wide digital inclusion strategy for sustainable and affordable access for all. They view access as a basic human right, and see cross-sector collaboration as vital, to ensure everyone has the support, capability and confidence to navigate the internet' (Seah, 2020). However, as socio-economic and regional gaps continue to widen, and the cost of living rises, the agenda is inevitably encountering many challenges. A report published on October 2, 2023 reported that, in the UK:

- Approximately 13–19 million people over the age of 16 are experiencing some form of digital poverty.
- Digital Poverty is strongly associated with age. The research estimates that 1 in 2 older adults are in digital poverty, and 1 in 5 are in severe digital poverty.
- However, it is not just older adults who are impacted. Approximately 20% of children are in digital poverty.

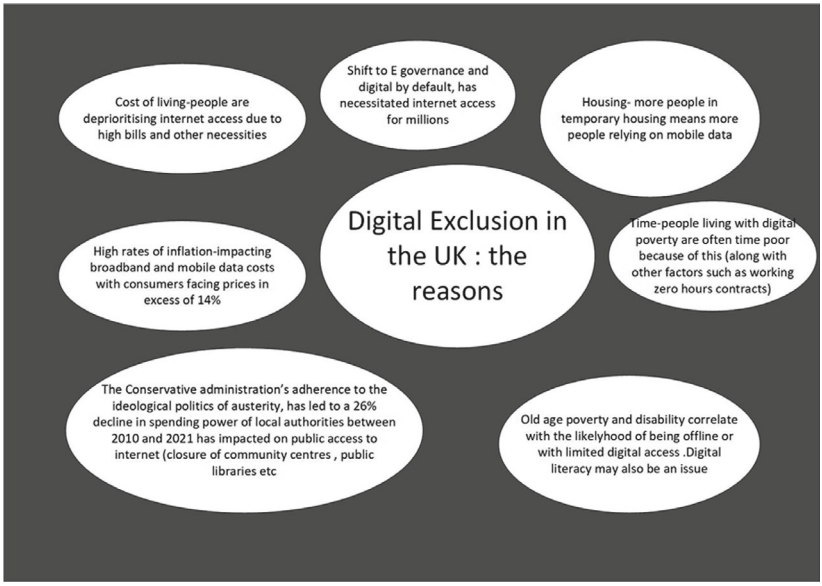

Fig. 4.1 Digital exclusion in the UK: the reasons (Adapted from Nathaniel-Ayodele & McGrath [2023])

- People who are unemployed are estimated to be 2–3 times more likely to be in digital poverty.
- Younger adults are more likely to be impacted than middle-aged adults.
- One in two individuals living in bracket DE households are in digital poverty.[1]
- Women are between 14 and 22% more likely to be impacted by digital poverty than men (Deloitte, 2023, p. 15).

In addition, the report also states that billions of pounds in benefits can be unlocked by ending digital poverty, citing the below, as examples:

[1] A, B, C1, C2, D, and E is a socio-economic classification for households produced by the Office for National Statistics (ONS). DE households are those in the two lowest socio-economic classification categories—including households whose chief income earners are in semi-skilled occupations, unskilled manual occupations, casual occupations, the lowest grade occupations, unemployed with state benefits, or are state pensioners.

- Approximately £17 billion increase in yearly earnings due to six million people gaining essential digital skills for work.
- An estimated increase of £4–6 billion a year due to 7–9 million people being able to manage their finances better due to digital access.
- Almost £1 billion is estimated in government efficiency savings.
- However, the benefits to society are not only economic; the research estimates that improved digital access along with improved health literacy could reduce mortality among the over 65s and lead to an estimated 18–24 k lives saved per year.

Helsper and Reisdorf (Helsper & Reisdorf, 2017), talk about a digital underclass, using the term 'digital exclusion' to describe the range of external and internal factors that explain why people disengage from the internet (p. 3). Using a quantitative longitudinal approach, they examined reasons for disengagement from the internet and how the predictors of these reasons, change according to the country. They point out that the internet has moved to 'incorporate a wider variety of activities of increasing complexity', making full engagement a matter of a wide range of skills (Helsper & Reisdorf, 2017, p. 7). In addition, they state that those without educational qualifications were 17 times more likely to be non-users than someone with higher education.

Digital Access as a Human Right

The relationship between the internet and digital access as a human right is increasingly to the fore in intergovernmental debates worldwide. A report by the Data Poverty Lab, part of The Good Things Foundation—a charity established to fix digital exclusion in communities throughout the UK—argues that framing internet access as a human right conveys a truth: our society is reliant on internet access…it is a necessity for daily life' (Nathaniel-Ayodele & McGrath, 2023, p. 3). They argue their point according to the Declaration of Human Rights (1948): articles 19, 20, 21, 22, and 26.

Articles 19 and 20 of the Universal Declaration of Human Rights emphasise the right to freedom of opinion and expression, as well as the freedom of peaceful assembly and association. In the contemporary digital age, online media and social networking have revolutionised the accessibility of information and the ability to connect with like-minded

individuals. However, as the report points out, newfound connectivity has also exposed vulnerabilities, as some governments resort to tactics like social media blackouts and cyberattacks to suppress dissent and undermine democratic processes. Articles 21 and 22, underscore the rights to access public services and social security. The shift towards online services has, in some regions, restricted access to public services, with in-person or paper-based options being phased out (AlAwadhi & Morris, 2009). This transition has raised concerns about equitable access to essential services.

Article 26 highlights the right to education. In relation to this, there is some evidence (although not conclusive by any means) that there is a correlation between fixed-line broadband availability and educational attainment (Park, 2017; Srinuan & Bohlin, 2013). However this evidence is, so far, very localised.

On a global scale, internet access is integrated into the United Nations Sustainable Development Goals (SDGs) and features prominently in Goal 4: Quality Education-indicator 4.4.1 cover the proportion of youth and adults with information and communications technology (ICT) skills. In response to this and other localised drivers, a number of countries have already included the right to internet access in legislation. For example, Mexico recognised internet provision as a constitutional right in 2013. In India, high court rulings in some states declared the internet to be a right, offering redress for residents who missed opportunities, while Finland has made internet access a legal right, with major investments in infrastructure and internet services (Nathaniel-Ayodele & McGrath, 2023, p. 18).

In 2021, the United Nations Human Rights Council adopted a resolution on human rights on the internet. This calls upon all states to 'accelerate efforts to bridge digital divides, including to enhance the use of information and communications technology, in order to promote the full enjoyment of human rights for all … [and] to support civil society in its efforts to address barriers to digital access'. The UK is a signatory, we should build on this resolution and explore the possibilities within the UK context. In exploring this, it would also be important to recognise concerns expressed by people who feel 'forced online'—a right to be offline and to access essential services in non-digital ways. This should also include people excluded from digital access for a variety of health reasons (Mistry & Jabbal, 2023; Rai et al., 2022, Donaghy & Crick, 2021).

Digital inequality has a profound effect on all areas of life, but there is plentiful evidence that its effects on education at all levels is particularly profound and deleterious to society (Baxter et al., 2022; Lechman &

Popowska, 2022; Lee et al., 2023). In the section which follows, we examine its effects on higher education in the UK.

Impact on Higher Education

A report carried out by The Office for Students (OfS), during coronavirus (COVID-19) lockdown, found that 52% of students said their learning was impacted by slow or unreliable internet connection, with 8% 'severely' affected. According to the poll of 1,416 students:

- 71% reported lack of access to a quiet study space, with 22% 'severely' impacted.
- 56% said they lacked access to appropriate online course materials, with 9% 'severely' impacted.
- 18% were impacted by lack of access to a computer, laptop, or tablet, and 4% said they were 'severely' impacted (OfS, 2020).

In addition to this, social class, has been proven to be strongly linked to digital poverty and lack of access to higher education (Reay, 2013). 'At the Open University, where 75% of students are in employment, many students (exacerbated by COVID/lockdown) had to share a single piece of hardware for which up to four household members had priority, and which may have been situated in someone else's room. It is not uncommon that disadvantaged adult students rely on their children's devices (demonstrating parental willingness to sacrifice their own needs to those of their children "keeping up" with their peers). Further challenges have come from the pressure (with schools intermittently closed) to home-school children, or to afford IT equipment and associated costs when students had their employment hours reduced during COVID' (Butcher & Curry, 2022, p. 4).

The impact of digital poverty on higher education is multifaceted. In an era where online resources and virtual classrooms are integral, students facing digital poverty encounter numerous challenges. Access to required readings, online lectures, and academic databases become restricted, hindering their ability to fully engage with the curriculum (Pentaris et al., 2020). Virtual classroom participation and collaborative projects are also compromised, limiting students' holistic learning experiences. Moreover, the digital divide can adversely affect research opportunities and access

to academic support services. As research reports, digital poverty exacerbates existing educational inequalities. Those students without adequate digital resources may struggle to keep up with their peers, leading to lower educational attainment and reduced future opportunities (Matli & Ngoepe, 2022; Pentaris et al., 2020). This is exacerbated in terms of individuals classed as NEET (not in employment, education, or training).

Challenges are particularly acute in relation to Access qualifications such as foundation degrees, where students are more likely to have lower levels of education and come from more deprived backgrounds. A report by Butcher and Curry of The Open University UK explains the lack of adequate digital readiness experienced by many students looking to study foundation degrees (Butcher & Curry, 2022, p. 180). They point out that in a typical presentation of an OU Access module, 'around 68% of students visit the module website' (p. 184). Their data illustrates that, 'of the 289 students who visited the module website fewer than 20 times, only 7 managed to submit their final assessment. In contrast to 342 of the 356 who visited over 100 times, submitted their final assessment' (Butcher & Curry, 2022, p. 184). This is challenging from the perspective of both business and law, as many of them enter HE via access qualifications (Butcher & Curry, 2022).

Higher education institutions play a crucial role in addressing digital poverty, for example, they may implement strategies to ensure equitable access to digital resources. One approach involves providing loaner laptops and Wi-Fi hotspots to students in need (Ruiu et al., 2023). Another is to provide grants to those students suffering financial hardship: such grants may provide money for printers, ink, or broadband (Butcher & Curry, 2022; Ruiu et al., 2023). Additionally, universities can offer digital literacy training programmes to empower students to navigate online learning environments effectively (Spante et al., 2018). Creating a repository of downloadable course materials can further alleviate the impact of restricted access, but only if students have the funds to afford printing.

Assumptions Around Digital Literacy

A report on digital literacy in HE during the pandemic carried out a comparative study of digital literacy in relation to HE in Spain, Italy, and Ecuador (Tejedor et al., 2020). They point out that one of the issues is

the assumption that 'Generation Z' are digital natives, able to manipulate technology to an advanced level. Generation Z, so called, were born into a world immersed in the Internet and there are assumptions that their upbringing has made them highly Internet-savvy, possessing innate skills for digital learning. Veen and Vrakking go further, describing them as 'homo zappiens', equipped with metacognitive abilities suited for diverse learning styles and problem-solving (Veen & Vrakking, 2006). Some research indicates structural brain differences, with enhanced visual processing but shortened attention spans due to constant exposure to visual stimuli (Cruz & Díaz, 2016). Both papers argue that this generation's identity is fundamentally shaped by their digital immersion.

However, there are issues with this in relation to the digital teaching of business, law, and any other subject. The assumptions that Generation Z need little or no assistance when grappling with complex teaching interfaces is often erroneous. It is particularly so in the context of economically deprived students, whose only interaction with digital may have been through a phone. It is also problematic to assume that just because individuals may be able to manipulate social apps, they are instantly guaranteed to be able to engage with, for example, student forums. As Baxter and Haycock in their work examining power and identity in large forums reports (Baxter & Haycock, 2013), students must be inducted into the culture of such learning tools, as well as their physical manipulation. There is ample literature to illustrate that the use of such forums can be problematic in a number of ways, for example, student self-appointed 'experts' domination of the forum by a few students. Other work on student identities and feelings of confidence reflects that students are not, on the whole, confident with the myriad applications used by digital business and law schools, as they have no call to use them outside of the university (Spante et al., 2018).

As the literature reports, many students from poorer backgrounds attempt to study on their smartphones (Butcher, 2001), but this presents issues for writing essays. Since Butcher's paper was published, there has been a great deal of research on studying on smartphones. The TESSA teacher training in sub-Saharan Africa is a good example of one such project, carried out at the Open University UK (Moon, 2010; Murphy & Wolfenden, 2013). Research on user satisfaction using smartphones carried out in Indonesia (Haryaka et al., 2017) proposed a model of learner satisfaction, to be used in relation to the use of phones for learning, was premised on the relationship between users' beliefs about a

technology's usefulness and the attitude and the intention to use the technology (p. 375). Measures of learner satisfaction are further complicated as students generally only have one experience of e-learning to reflect on, and also fail to identify how learners actually engage in learning and skills acquisition (Dadd & Hinton, 2021).

The model, situated in Fig. 4.2, illustrates that using a mobile device is dependent on a number of factors, including attitudes to use. Adult learners, those beyond Generation Z and the market for many Open University Students, may be less likely to use a mobile to write an essay due to their perceptions of what a mobile is traditionally used for. In addition, Baxter et al. (2022) built on this model, illustrated in Fig. 4.2, to include areas: availability of equipment and mobile data; digital literacy; acceptance by institution—some will not accept work done on a mobile and this is reflected in their website design.

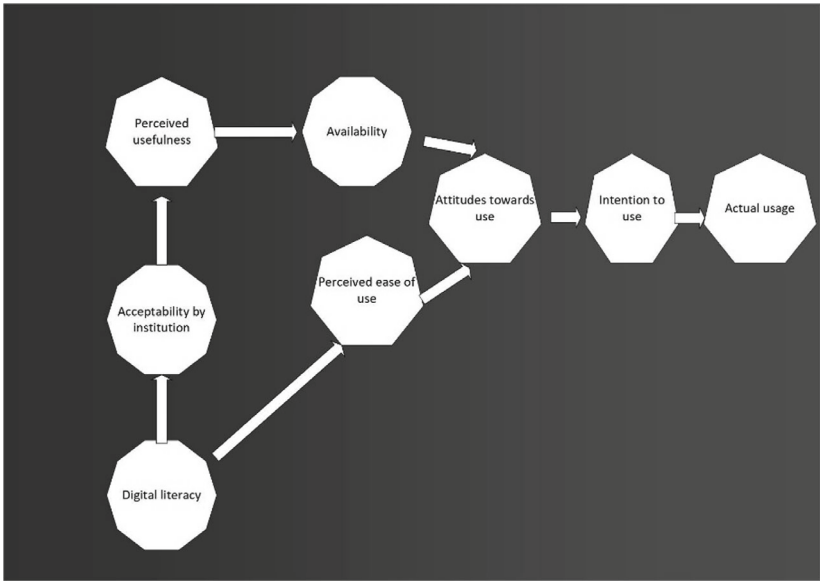

Fig. 4.2 Technology acceptance model (*Source* Haryaka et al., 2017, p. 24 adapted by Baxter and Hinton [2023])

BAME Students and Digital Poverty

The impact of digital poverty on BAME (Black, Asian and Minority Ethnic and is defined as all ethnic groups except White ethnic groups) learners is evidenced in a number of research studies, for example (Mapletoft et al., 2022; Ramasawmy et al., 2021; Singh, 2020). An important scoping study was carried out in 2021 by JISC (Hutchings & Sheppard, 2021), which examines whether BAME learners are more likely to be disproportionately affected by digital exclusion. Although the report focuses specifically on FE learners (including HE in FE), the results offer insights for the HE sector. Figure 4.3 illustrates the ways in which BAME students struggle in relation to various elements of digital poverty. As can be seen by the exemplar table, the greatest challenges for BAME students surveyed relates to access to online platforms and services, where 33% of Black/African/Caribbean (BAC) students struggle as compared to just 16% of White students. Mobile data costs are also an issue, with 23% of the BAME category and 35% of the BAC category struggle with this, compared to just 13% of White students. The overall correlation with poverty levels can clearly be seen in the lack of safe private areas to work where 18% of BAC students report this issue, compared to 13% of BAME and 8% White students. The report continues by stating that, 'as many as 100000 students may be missing out on learning because they do not have a suitable device to learn on' (Hutchings & Sheppard, 2021, p. 11).

When learning online, have any of the following been a problem?	BAME	White	Black / African / Caribbean
No suitable computer/device	23%	13%	29%
Poor Wi-Fi connection	39%	35%	43%
Mobile data costs	23%	13%	35%
Access to online platforms/services	28%	16%	33%
Need specialist software	17%	9%	25%
No safe, private area to work	13%	8%	18%

*Source: Jisc FE Learner digital experience insights survey 2021. Percentages are based on all answering each question (therefore base sizes vary). BAME = all respondents selecting an ethnicity other than 'White'. To note questions were not compulsory and we did notice around 25% of the 230 Black/African/Caribbean respondents in the survey typically provided no answer to each of these questions.

Fig. 4.3 Learning online (*Source* Hutchings & Sheppard, 2021, p. 10)

Digital literacy looms large in the report, echoing the Butcher report mentioned earlier, in that learners at entry level typically have very low-level skills, often with little or no experience of using technology, 'the lack of language skills for ESOL learners in particular', creating an additional barrier (Butcher, 2001, p. 11). Citations from the various colleges involved in the research also make the link between BAME digital poverty and subsequent low employment levels. Consider, for example, this quote from Walsall College:

> It's clear that digital poverty is particularly impacting learners from BAME backgrounds …When learners become disengaged, they are at a much higher risk of dropping out, and with the current state of the job market many will struggle to find employment. This leads to a cycle of poverty. (Walsall College, p. 11)

Recent Work into Barriers Preventing Both Success and Participation in HE

Digital Literacy in Business and Law

Digital Poverty and the Study of Business

The acceleration of digital adoption in teaching and learning during the pandemic meant that often long-term strategic plans for digital learning in business schools were replaced by rapid implementation plans (Berry et al., 2023). Now that HEIs have had time to reflect on what worked well and should continue and what didn't work for their institution, there is an opportunity to revisit strategic plans and embrace the best of digital transformation. This digital transformation must, inevitably, embrace plans to combat digital poverty or risk failure of strategic planning to implement quality digital learning (Baxter et al., 2022).

Digital poverty in business schools encompasses factors such as inadequate access to digital devices, unreliable internet connectivity, and a lack of exposure to essential digital tools and resources. This situation can create significant barriers to the development of digital literacy skills among students who are expected to navigate data analytics, online marketing, and other digital aspects of modern business (Neumeyer et al., 2020).

As explained earlier, digital poverty often restricts students' access to online learning platforms, where they can access course materials, engage

in discussions, and collaborate on projects. This limitation hampers their ability to develop familiarity with these digital tools, which are vital in contemporary business settings (Kasworm & Hanley, 2020). Business education increasingly relies on interactive and collaborative digital learning methods. Students facing digital poverty may find themselves excluded from these learning opportunities, impeding their engagement and digital literacy development (Eichner, 2018).

Data literacy is integral to modern business practice, but students without sufficient digital access may lack the opportunity to practise data analysis skills. This limitation can hinder their competitiveness in data-driven industries (Günay, 2020). In relation to employment, digital literacy is a vital skill for career advancement in business. Graduates with limited digital literacy may face challenges in securing positions and advancing within organisations, especially in roles that require digital acumen.

To mitigate the impact of digital poverty on digital literacy in business schools, research suggests that institutions must adopt a multifaceted approach:

- Institutions should provide affordable or loaned devices to students in need and ensure reliable internet connectivity on campus. Collaborating with technology partners can also help address these issues (Jalava & Sarvimäki, 2020).
- They must integrate digital literacy training into their curricula to ensure all students have equal access to skill development opportunities (Cimbalista et al., 2021).
- Business schools should provide flexible learning options to accommodate diverse learning styles and technology proficiency levels among students (Kasworm & Hanley, 2020).
- Collaboration with industry partners can help bridge the digital divide by providing students with access to digital tools and real-world applications (Eichner, 2018). However, this can, and does, lead to technological determinism as was seen in all sectors of education during the pandemic (see, for example, Baxter et al., 2022; Norris, 2023). This tech determinism is ongoing and a regular feature of university policy. This is hugely problematic from an

ethical perspective, given the lack of adequate regulation in relation to their practices (Rikap & Lundvall, 2022).

Digital poverty has a profound impact on digital literacy in business schools, affecting students' access to resources, participation in digital learning, proficiency in digital tools, and their future career prospects. Addressing digital poverty in this context requires a concerted effort from educational institutions, policymakers, and industry stakeholders to provide access to devices, integrate digital literacy into curricula, and support diverse learning styles. By doing so, business schools can empower students with the essential digital skills needed for success in the dynamic and technology-driven world of business and the public services.

Digital Poverty and the Study of Law

Government and Policy Interventions: How to Resolve Digital Inequality in the UK

Governments also play a pivotal role in combating digital poverty. Policy interventions can include subsidising internet connectivity for low-income households, investing in rural broadband infrastructure, and implementing digital inclusion programmes in schools. Tax incentives for technology donations and collaborations with private sector entities can facilitate access to affordable devices. In Africa, for example, COVID-19 gave rise to a raft of policies addressing the digital divide in relation to education (Ozili, 2020). As Africa includes countries with some of the most unequal societies in the world, for example, South Africa, the impact of the pandemic was catastrophic on those with already struggling education systems (Ehren & Baxter, 2020; Ehren et al., 2018). Policy action taken by countries during the pandemic illustrates what is possible in relation to business as usual. For example, Wales, which already had a framework for digital inclusion (WG, 2016) but, since the pandemic, has recognised that the situation is dire and urgent: one in seven adults in Scotland and Wales experience data poverty. With over a million adults in both countries are struggling to afford sufficient, private, and secure access to the internet (Lucas et al., 2020). Key findings of a report by Nesta (National Endowment for Science, Technology and the Arts), an independent charity that works to increase the innovation capacity of the UK, included:

- Data poverty is a common problem among disadvantaged groups in Scotland and Wales.
- Barriers to people accessing the data they need include low income, not being able to get a data contract, lack of privacy, and local infrastructure.
- The impact of these barriers is greater in combination and for those who have higher data needs.
- More research is needed to understand the costs of data, how many people are data-poor, and which groups are most vulnerable to data poverty (Lucas et al., 2020).

In relation to Nesta's stance of social innovation, the presence of digital inequalities represent a significant barrier to both social and economic innovation.

Research points out that addressing digital poverty requires collaboration among various stakeholders, including educational institutions, government bodies, non-profits, and the private sector (Academy, 2022; Nathaniel-Ayodele & McGrath, 2023; Lucas et al., 2020).

For example, public–private partnerships can facilitate the distribution of technology and internet access to underserved communities. Non-profits can contribute by launching initiatives that provide refurbished devices to students in need, bridging the technology gap (Helsper & Reisdorf, 2017) and reducing the 'digital underclass' issue present in Helsper and Reisdorf's study.

The way digital access is framed is important too. Earlier in the chapter we spoke about internet access as a human right, but organisations combatting digital exclusion believe that it can also be framed as a 'positive right' which places an obligation on society and the state to help individuals access the internet. This perspective acknowledges that just as society has a duty to provide education, housing, or food to those in need, it should also support internet access. However, framing internet access as a positive right does not necessarily mean it should be universally free but places governments under pressure to consider circumstances where it might be free, such as for certain groups (e.g., vulnerable populations), purposes (e.g., accessing essential services), or during specific situations (e.g., public health emergencies). This then raises a debate about who funds this and how it should be implemented, whether through taxation or other means (Nathaniel-Ayodele & McGrath, 2023). This approach automatically implies safeguarding non-digital access to essential services,

as well as providing support and protections for those facing digital exclusion.

To implement a rights-based approach to internet access, a model, developed by the European Network of National Human Rights Institutions, provides a framework for duty-bearers, including governments and institution. PANEL (Participation, Accountability, Non-discrimination and equality, Empowerment, and Legality), comprises five core principles in relation to human rights, and featured below and represent a powerful structure within which to frame digital inclusion policy:

- Participation: Involving people with lived experience in policymaking and ensuring accessible participation methods, not limited to online channels.
- Accountability: Setting national standards to hold duty-bearers accountable and monitoring efforts to combat digital poverty and exclusion.
- Non-discrimination and Equality: Ensuring that access to essential goods and services is fair and equal, conducting equality impact assessments to address digital access disparities.
- Empowerment: Providing information and support for legal remedies and assistance programmes, such as the Universal Service Obligation and social tariffs, to help individuals access the internet.
- Legality: Maintaining non-digital access channels for public services and ensuring that legislation and guidance align with digital advancements and human rights principles (ENNHRI, 2023).

A report from The British Academy (Academy, 2022), and mentioned earlier, includes six policy lessons, derived from reports into digital poverty and its effects. They argue that policy challenges are context-bound and need to be tackled from multiple levels of government. They also argue for a diachronic view of policy challenge and development, looking backwards at lessons learned as well as tackling immediate and future challenges.

The three areas in the report are as follows:

- Place as an essential part of grounding policy response in relation to crucial knowledge from citizens, communities and cultures, in order

to improve the sensitivity of decision-making to the distinct challenges and opportunities for different places. Given the widening gap between London and the South East, and everywhere else in the UK (Barca et al., 2012; Budd et al., 2017), a one-size-fits-all approach to digital policymaking is clearly not fit for purpose.

- The second area mentioned by the report relates to scale; this reflects the complex interconnections between levels of decision-making, from individual choices and behaviours to international and global relations and the relations of power and influence within and between them. Given the influence of big tech and cross-national policy influencers such as the OECD and The World Bank, this element is particularly difficult to grapple with (Baxter, 2017; Bettig & Hall, 2012; Heinz, 1993; Sinclair, 2014), particularly given the influence of big money on democratic systems of government (Ambrose, 2019), and their concomitant erosion of their power (Matthijs, 2017).
- The final area relates to time; this is highlighted in relation to how policy relates to history and when and over what length of time it will take to address the considerable challenges ahead.

Conclusion

This chapter has discussed the effects of digital poverty and higher education, and illustrates that, if not addressed, this issue threatens to increase what is already a digital underclass in relation to the student population. Viewing digital poverty as a breach of human rights is an important lens through which to view the challenges. Ensuring equitable access to digital resources not only provides fair educational opportunities but also promotes inclusivity and diversity in academia. To bridge the digital divide, efforts should focus on both short-term solutions and long-term sustainability, taking into account context and timing.

Digital poverty poses a significant threat to higher education's core principles of accessibility and equity. Without meaningful interventions, the gap between digitally privileged and disadvantaged students will continue to widen. Recognising digital poverty as a systemic issue necessitates coordinated efforts from governments, institutions, and various stakeholders to ensure that all students can fully participate in the digital age of education. By prioritising policies that address digital poverty, we

can pave the way for a future where access to higher education is truly equal for all.

Tips

This chapter can be used with students and or policymakers to think about how digital inclusion can be viewed as a human right.

Discussion Points

What advantages are there of considering digital inclusion as a human right?
What particular challenges are there for law and business schools in relation to digital poverty?
How can the scholarship of teaching and learning (SoTL) aid understanding of digital poverty and its effects?
How can what we know about digital poverty and its effects help to shape learning design?

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CHAPTER 5

Investigating Student Engagement with Digital Interactive Learning Tools at Level One: Actual and Perceived Value of These Resources

Sarah Henderson and Ben Trupia-Melluish

Background

As far back as 1998, Wilbur noted that 'Concurrent with the phenomenal growth in online learning, stakeholders in education continue to demand greater accountability and evidence of effectiveness in teaching' (Wilbur, 1998 as cited in Robinson & Hullinger, 2008, p. 101). Since then, there has been a great deal of research into digital learning methods and their effectiveness. However, this traditionally focused on comparisons between the digital and face-to-face environment and whether the

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former can successfully replicate the latter. In 2001, Palloff and Pratt (as cited in Robinson & Hullinger, 2008, p. 101) noted that:

> Research in this area tends to focus on whether online learning is as effective as face-to-face learning in achieving learning outcomes. Studies on the effectiveness of online learning fall into three broad categories: (a) student outcomes, focused on test scores and grades; (b) student attitudes about learning; and (c) overall student satisfaction with online learning. Findings largely support the view that the learning outcomes of students online are similar to those in face-to-face settings.

Research into student engagement highlights that engagement pertains to 'the efforts of students to study a subject, practice, obtain feedback, analyse, and solve2004 problems' (Kuh, 2003 as cited in Robinson & Hullinger, 2008, p. 101). It is a 'multifaceted concept that encompasses behavioural, emotional, and cognitive aspects' (Fredericks et al., 2004). Behavioural engagement refers to participation and includes involvement in academic, social, or extracurricular activities. Emotional engagement encompasses affective reactions to teachers, classmates, and the institution in which the learning occurs. Finally, cognitive engagement incorporates thoughtfulness and willingness to exert the effort to comprehend subject matter and master skills (Fredericks et al., 2004; Muir et al., 2019, p. 263). Additionally, dimensions of engagement in the online context include level of academic challenge, active and collaborative learning, student-faculty interaction, and enriching educational experiences (Kuh, 2001 as cited in Muir et al., 2019, p. 263).

According to Anderson (2003) (as cited by Muzammil, 2021, p. 89), student engagement and interaction is essential to student success in online learning. '…Student success becomes critical in online environment since this environment encourage students to depend mostly on their ability to learn. Verneil and Berge (2000) have shown that student success in online learning mostly supported by their activity during learning process' (Muzammil, 2021, p. 89). Bernard et al. (2009), as cited by Muzammil (2021, p. 89) highlight three types of interaction: 'those…between students, interaction of student to instructor, and interaction of student to content'. Engagement is critical to student learning and student satisfaction (Martin & Bolliger, 2018 as cited by Muzammil et al., 2021, p. 89).

'The best way to increase student engagement is to create collaboration and interaction elements (Bouta et al., 2012; Yilmaz, 2020). In this sense, learning analytics based metacognitive feedback support is thought to improve student engagement… The student interacts with the teacher through feedback' (Karaoglan & Yilmaz, 2022, p. 452). In providing such feedback, a personal learning environment is created by tailoring feedback to student need.

In considering student engagement through multimedia technology, Wankel and Blessinger (2013), as cited by Uçar and Kumtepe (2021, pp. 172–173) identify two prominent principles: Firstly,

> More interesting and engaging environments can be created by presenting instructional messages and activities in various media forms and modalities. Easily understandable, rich, dynamic, and meaningful content and pedagogies that appeal to different senses can be developed. Thus, the initiation of student participation, motivation and interest can be supported.

Furthermore,

> Multimedia technology has the potential to increase cognitive attention and emotional interest in the subject to be learned. These media can ensure consistent and authentic representation of information. On the other hand, they can be prepared following modern learning theories that explain how a person learns and explaining that human emotions and social behaviours are related to information processing.

Our project considers the extent to which Level 1 students in Business and Law make use of interactive activities within the online module materials. Such activities include (but are not limited to) reflective activities, multiple choice questions, and drag-and-drop exercises. The aim was to establish, using data, the level of usage and follow this up with a questionnaire for students and a series of focus groups to ascertain the way in which students are using the interactive materials and the value they attach to these. We therefore set out to find the answer to the following questions:

- How do students engage with digital interactive learning tools at Level 1?
- What is the actual and perceived value of these resources?

Research Methods and Design

Both schools within the Faculty of Business and Law were undergoing a period of significant module development at the time of the research. It was therefore of paramount importance to ascertain how students engaged with digital interactive learning tools, in order for this to be incorporated in learning design. It was also of interest to uncover the value students attached to the varying types of online interactive learning tools, as this would affect both their performance and their perceptions of the modules. It was decided that two large (circa 5,000 enrolments annually) introductory Level 1 modules, one from the Business School and one from the Law School would provide the ideal research opportunities to explore this further. For this reason, we chose:

- B100—An Introduction to Business and Management
- W101—An Introduction to Law.

These are typically the first modules business and law students at the Open University students will study. However, some students will have pre-existing experience of supported distance learning at the Open University when they join a business or law degree. One thing we wanted to consider is whether the way in which students interact with online materials changes as they settle into their course; does the time spent on these activities and the value attached to them alter as students become accustomed to distance learning?

Students from the February 2020 intake were invited to take part in the survey and focus groups as they had recently completed these modules at the time the research was undertaken. This meant that the module they were asked to consider was fresh in their mind, but they had already worked through the entirety of the materials, thus enabling them to comment on whether their habits of interacting with the activities altered as they progressed through the module.

Activities

The Open University hosts its modules on a Moodle-based Virtual Learning Environment (VLE). Students are directed to study set materials each week through the calendar-based design of the module websites.

Table 5.1 Activities and number of examples

Type of activity	*Number of examples on B100*	*Number of examples on W101*
Free text	91	114
Tick-box	8	
Drag and Drop	12	11
Polls	1	
Interactive diagrams	1	
Forum discussions	15	1
Multiple choice questions	2	17
Research exercise		15

Each week will consist of a variety of activities that need to be reviewed and completed, including digital interactives which are listed in Table 5.1.

Activities

Free-text activities are by far the most frequently used activity type on both courses and allow students to type their own response to a task into a textbox. Generic feedback is then provided. These activities are varied in nature and include, for example, providing initial thoughts on a topic at the start of a unit, commenting on or summarising content from an audio or written resource, short answer questions, reflecting on a resource, answering questions on a case style or scenario, or structuring an answer to a question.

Tick-box activities: these activities are designed to test whether the student can select the correct answer or answers from a provided list of possible answers to a question posed.

Drag and drop: these activities are designed to test whether a student can match terms to their meanings or whether they can place a term into the correct order within a process based on the learning they have just engaged with.

Polls: these activities ask students to vote on a question asked out of a provided list of possible answers. It links with other students' responses on the VLE.

Interactive diagrams: these activities are similar to the drag and drop, in that they allow students to engage with a diagram and label different parts of a process or click various aspects to reveal a meaning.

Forum discussions: forums are used at the Open University as a place for students to exchange ideas with peers from within their module or tutor group on an idea or question posed in the module materials. Students would be directed to visit a forum and contribute, read other contributions, and respond to their peers' views.

Multiple choice questions: sometimes referred to as MCQs. These activities are designed to test knowledge of a subject area or topic. Various questions are posed, and students can test whether they can correctly identify the correct answer or answers.

Research exercise: these activities are included to direct students to access a resource, possibly in the Open University online library. They would then come back to the VLE once they have completed the exercise to continue with their studies and progress to the next activity which might ask them to do something with their new knowledge gained from this activity.

Initially data was sought on the number of interactions with each activity on the Virtual Learning Environment (VLE). This was to be a starting point, indicating the most used type of activities. We were aware that this would be limited in scope as, whilst a student may have clicked on an activity, the extent to which they had engaged would be unclear. For example, it is possible for a student to put a very limited amount of text into a free-text box in order to obtain the feedback.

Unfortunately, obtaining the data was a significant barrier to the research. Whilst data is available showing the number of times a page has been accessed, the OU systems cannot break this down to show interactions with specific activities. Therefore, to fully answer the research questions, we adopted an epistemological research approach (Saunders et al., 2016, pp. 122–174). The most suitable approach emerged as a deductive mixed methods approach, allowing for quantitative data to be collected through questionnaires and qualitative data to be obtained through focus groups (Saunders et al., 2016, pp. 122–174). This method was chosen because it allowed us to utilise initial responses from the questionnaire to identify patterns of student behaviour. The questionnaire also allowed an opportunity to garner comments from a wider pool of students as to the reasoning behind their engagement. In drawing together this information, we were able to identify specific discussion areas for exploration in our focus groups. The focus groups were convened to gain depth of understanding from a smaller cohort of students (Saunders et al., 2016, pp. 122–174).

Questionnaire (Appendix)

The aim of the questionnaire was to gather quantitative data from as many students as possible and so this was sent to all students who had completed the module but had not either opted out of surveys or been contacted recently for their comments/opinions on another project. Having passed information about the student sample we required to the Student Research and Project Panel (SRPP), this team was able to identify relevant students and supply the data required for these students to be contacted. The sample size was 1,679 students who had completed B100 and 1,072 students who had completed W101. A prize draw was offered as an incentive for students to complete the questionnaire, it being recognised that a larger sample of students would be likely to result in more accurate analysis.

Questions asked were designed to identify:

1. Which activities students used;
2. Which activities they felt benefitted their academic development (both knowledge and understanding and academic skills);
3. Whether the way in which they engaged with the activities changed throughout the course.

The first question students were asked was whether they had completed B100 or W101. This was to enable a breakdown of the data to identify any similarities or differences between the way in which business and law students approach online interactive learning tools.

Students were then asked whether this was the first module they were studying at the Open University. This was important to know as part of the research plan was to focus on whether students changed their approach to the tasks set as they worked through the module and became accustomed to distance learning. Where students had studied an Open University module before they may already have become accustomed to using online interactive learning tools and this may influence any findings.

The questionnaire then went on to focus on specific online interactive learning tools. The third question was structured to enable the collection of data on student preferences for each type of activity within a single question. A free-text option was then provided for students to identify any other type of activity they used and wanted to comment on (Table 5.2).

Question: Please rate how valuable you found each type of activity:

Table 5.2 How valuable was each type of activity?

Activity	*Very*	*Fairly*	*Not very*	*Not at all*	*Not applicable*	*Comment*
Quizzes/multiple choice questions						
Drag and drop						
Completing tables and diagrams						
Case studies						
Reflective activities						
Typed response answers						
Forum activities						
Other (please specify)						

To assess whether the time spent using online interactive learning tools changed throughout the module, students were asked to indicate whether time spent had increased, decreased, or remained consistent. A free-text box was also provided for students to explain their reasoning for any variation.

In addition to the time spent, students were also asked whether the way in which they engaged with the activities altered as they progressed through the course, again giving a free-text box so that reasoning could be provided.

Finally, students were asked to indicate whether online interactive learning tools had enhanced their learning experience and were provided a free-text box for any additional explanation to be provided.

Focus Groups

Within the questionnaire, students were asked if they would like to take part in focus groups, the purpose of which was to add greater depth to the information gathered through the questionnaire. Again, an incentive was offered to students to take part to encourage the widest possible pool of students to volunteer. We hoped to be able to have sufficient student volunteers to be able to invite students from a variety of grade bands to take part in the focus groups, as well as ensuring a gender mix.

Four focus groups were conducted: two groups for students on each programme. The intended group size was five students per group;

however, some groups ended up being smaller due to cancellations and non-attendance. This also meant that not all groups had a mix of grade bands and were made up as follows (Table 5.3).

The sample size of 2,751 (1,679 B100 and 1,072 W101) was sufficient in size to ensure data credibility (Saunders et al., 2016, p. 281). 169 (6%) students responded to the survey (94 B100 and 75 W101).

We predicted that the responses from new students would outweigh the responses from students for whom these modules were not their first module of study at the OU. This was because these modules were the first module students study towards either an undergraduate business or law degree and so are likely to be the first module studied at the OU. This initial prediction was proved correct (see Fig. 5.1) when the responses were received, of B100 students, 68 of the 94 responses (72%) came from new to study at the OU and, with W101 students, 63 of the 75 responses (84%).

Table 5.3 Focus group composition

	Sex	*Final module grade*
Group 1—law students		
Student 1.1	F	76%
Student 1.2	F	63%
Student 1.3	M	84%
Student 1.4	M	87%
Student 1.5	F	51%
Group 2—business students		
Student 2.1	F	66%
Student 2.2	F	77%
Student 2.3	M	84%
Group 3—business students		
Student 3.1	F	79%
Student 3.2	M	77%
Student 3.3	M	78%
Group 4—law students		
Student 4.1	M	58%
Student 4.2	F	87%

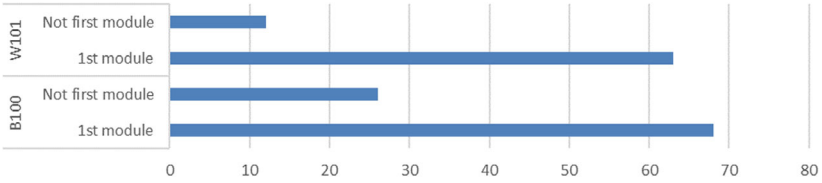

Fig. 5.1 Responses to questionnaire

Preferred Interactive Resources

Data from the questionnaires demonstrates that all groups of students feel that forum activities are the least valuable type of online interactive learning tool. Both new and returning B100 students placed case studies at number three with 90% (1st module) and 96% (not 1st module) finding them either very or fairly valuable. This is the only commonality in the top three between new and returning students (students who have previously studied) on B100 with new students preferring quicker drag-and-drop and quiz style activities to test knowledge whilst returning students preferred skills development activities and completing more detailed diagrams and tables more highly. Interestingly the W101 data exhibits strong trends with the top four most valued interactivities remaining in the same position when comparing data from students who are either new or returning. There is a notable difference between first-time students and returning students in relation to typed response questions with 84% of new W101 students finding these very valuable or fairly valuable, compared with 58% of returning OU students (Tables 5.4 and 5.5).

Time Spent

In relation to the time spent on interactivities, the majority of students reported that this remained consistent throughout the course (Table 5.6).

Where students identified that they spent more time on activities as the course progressed, this was attributed to a number of facets:

- study becoming increasingly challenging,
- the nature of the activities becoming more time-consuming (for instance, the inclusion of video material),

- feeling increasingly motivated by positive outcomes and feedback,
- developing the skills needed to complete tasks more thoroughly,
- increased confidence,
- revisiting activities from previous units,
- attaching greater value to the activities as the course progressed.

Table 5.4 How valuable are interactive resources to business students?

B100		*B100*	
First module studied	*Very or fairly valuable (%)*	*Not first module studied*	*Very or fairly valuable (%)*
Drag and drop	94	Links to study skill activities	97
Quizzes/multiple choice	92	Completing diagrams and tables	96
Case studies	90	Case studies	96
Completing diagrams and tables	88	Quizzes/multiple choice	88
Typed response answers	88	Drag and drop	87
Links to study skill activities	85	Typed response answers	84
Reflective activities	82	Reflective activities	81
Forum activities	69	Forum activities	81

Table 5.5 How valuable are interactive resources to law students?

W101		*W101*	
First module studied	*Very or fairly valuable (%)*	*Not first module studied*	*Very or fairly valuable (%)*
Case studies	98	Case studies	92
Links to study skill activities	98	Links to study skill activities	92
Quizzes/multiple choice	97	Quizzes/multiple choice	92
Drag and drop	93	Drag and drop	83
Typed response answers	84	Completing diagrams and tables	83
Completing diagrams and tables	81	Reflective activities	72
Reflective activities	75	Typed response answers	58
Forum activities	57	Forum activities	50

Table 5.6 Changes in time spent on interactive resources as the course progressed

	B100 first module studied	*B100 not first module studied*	*W101 First module studied*	*W101 not first module studied*
Time spent increased	13 (19%)	7 (27%)	18 (29%)	2 (17%)
Time spent decreased	13 (19%)	3 (12%)	7 (11%)	0
Time spent remained consistent	42 (62%)	16 (62%)	38 (60%)	10 (83%)

Of those who decreased the amount of time they dedicated to interactivities as the course progressed, reasons given included:

- workload at particular points in the module, for example around the time an assignment was due less time would be dedicated to online interactive learning tools,
- other resources were considered more valuable,
- a change in personal circumstances which reduced available time,
- less time was required as students became more familiar with the mode of learning,
- a drop in motivation and enthusiasm.

How Did Students Engage with the Materials?

The intention of this question was to assess the way in which students interacted with the online interactive learning tools. For instance, were they more or less inclined to use the activities in accordance with the instructions as they progressed through the course? Did they revert to bullet-point answers rather than full text? Did they access the feedback without first completing the activity? Did they change from using written notes to using the online text boxes provided or vice versa?

For completeness, the following table shows initial responses from students on whether the way in which they interacted with the resources altered throughout the course. As explained, however, this data is of limited value owing to the wide interpretation of the question (Table 5.7).

Table 5.7 Did the way in which students used activities change as they progressed through the course?

	B100 first module studied	*B100 not first module studied*	*W101 first module studied*	*W101 not first module studied*
Changed	24 (36%)	6 (23%)	18 (29%)	4 (33%)
Did not change	43 (64%)	20 (77%)	44 (71%)	8 (67%)

Additional Comments from Students on the Ways in Which They Used Activities Changed

- Confidence gained in certain activities and the resources increased. For example, students reported feeling more confident in their use of forums and so were more inclined to engage with them.
- Later in the course the activities were used for consolidation and revision, particularly to help with assignments.

Overall, Did Students Feel That the Interactivities Enhanced Their Learning?

Table 5.8 shows that the vast majority of students felt that the interactivities enhanced their experience of the course and their learning. Of those who did not, few reasons were given. However, one student commented that they did not feel sufficiently challenged by the course: 'Nothing in the Open University is extensive enough, I need so much more practice and help' (Participant 32). Another student stated that some activities were useful but that others were not: 'I used drag and drop/tables/typed text more to test my own knowledge. The reflection activities were a waste of time, so I did not use them at all. Case Studies could have been more present and more detailed in order to have been more helpful' (Participant 46).

Student comments on why they found online interactive learning tools a valuable part of their study materials could largely be sorted into the following five categories: (1) Feedback, (2) Skills development, (3) Active engagement with the materials, (4) Checking understanding and consolidating, (5) Variety. In what follows, we outline the findings in relation to these categories.

Table 5.8 Did students feel that the interactivities enhanced their learning?

	B100—first module studied	*B100—not first module studied*	*W101—first module studied*	*W101—not first module studied*
Yes	62 (93%)	26 (100%)	60 (95%)	11 (92%)
No	5 (7%)	0	3 (5%)	1 (8%)

1. **Feedback**

Student found it useful to be able to receive feedback on a formative task and identify where and how they could improve without waiting for a tutor response. One student noted that 'even if you didn't complete the tasks, you could still learn from the answer', evidencing another way in which students were making use of activities. Other comments included:

- … it provides live feedback with explanations that help make sense…. Personally, I found the case study with videos and then follow-up questions most useful, with the feedback after each answer (Participant 24).
- It tests your knowledge and gives immediate feedback so that you know if you are on the right thought process (Participant 69).
- Using interactive resources makes it easy and quick to complete tasks, as well as getting feedback quickly without having to wait for the tutor to answer (Participant 153).
- It offers an opportunity to put learning into practice without any 'cost' (Participant 82).

2. **Skills Development**

Students identified particular skills that had been developed through the use of interactivities, including writing and communication skills and critical thinking. Comments included:

- I was able to produce better quality assignments. It really helped with knowing how to reference better, which for me is a nightmare (Participant 27).

- I've improved on my writing skills (Participant 84).
- It allowed critical thinking to form through interacting with students (Participant 96).
- It helps you to explain something in more detail (Participant 5).
- It has helped me locate relevant information when needed and to write more concisely (Participant 25).

3. **Active Engagement with the Materials**

The tasks helped students to engage actively with the course materials and apply the knowledge they had acquired from their reading. Comments included:

- I find that the interactive resources suit my approach to learning—it is experimental, and you figure things out as you proceed through the module (Participant 63).
- It increases the engagement rather than just reading alone (Participant 69).
- Made me feel like I was taking part in learning, and I understood things more (Participant 93).
- For me, it has provided an interactive method of applying my knowledge to a situation and has reinforced my learning significantly (Participant 124).
- I do not always complete the activities but only when I want to gain a deeper insight. Overall, the activities are of a great value as they make studying less passive and the module material is presented in a 'friendly' way (Participant 138).

4. **Checking Understanding and Consolidating**

Students found it beneficial to complete tasks at points in the course where they needed to consolidate knowledge and check that they have understood the material.

5. **Variety**

Students found that a variety of learning activities helped to keep them engaged with their course and made it more interesting and fun to study. Comments included:

- With home learning you need to have different experiences other than reading, to keep the course interesting and engaging (Participant 127).
- It was very interesting and fun experience, different to just reading the material and making notes (Participant 147).
- They kept the content light and enjoyable (Participant 13).
- It keeps my interest and changed frequently to keep my engagement in my studies (Participant 6).
- I found the interactive resources helped to better engage with the materials and made allowances for different learning styles (Participant 19).

Focus Group Discussions

Each focus group was shown a series of examples of online interactive learning tools. Students were invited to discuss resources from their own course but were also shown resources from the other module to consider whether these would have been useful to them. Below are comments first from law students and then business students.

Law

Law students attending the focus groups achieved overall grades for W101 ranging from 58 to 87%. However, it is worth noting that those attending the focus groups were all highly engaged students who advised that they had made use of most or all of the online interactive learning tools within the module. This may not be representative of the overall student body but is a common limitation of focus groups; those students prepared to input are often very engaged with their studies (Rabiee, 2004).

Free-Text Activities

Students reported using these in different ways. Some students would complete them in full before revealing the feedback; others would type bullet-point answers and one student advised that they would think about the answers but sometimes just type 'test' in the text box so that they could reveal the feedback. However, all agreed that the feedback was an essential component. This allowed them to see what they might have missed within an answer and provided advice on what was relevant to the question, which was useful when preparing assignments.

In relation to skills development, students advised that the word limits were useful to them as it helped to build the skill of writing succinctly and 'get to the point' (Student 4.1). It was also useful preparation for the assignments, which are subject to strict word limits.

One participant stated that the scenario-based activities were extremely helpful in terms of being able to apply the law to a set of facts; 'I made a right pig's ear of this to start with, but the feedback showed up my errors and I was able to work on the skills' (Student 4.1). This participant also valued activities requiring them to make notes on a given resource or pick out relevant information. They advised 'I can now focus on the key points and avoid waffle' (Student 4.1).

Students found it especially useful that they were able to return to activities later to review their answers and refresh their memory.

Whilst useful, they did note that these activities were time-consuming with one stating that, where time is short, they would skip the free-text activities but still engage with quicker ones like drag-and-drop and multiple choice questions. Students also advised that they preferred to see the free-text activities within the main body of the course materials and not used as consolidation tasks. Again, they preferred the use of quicker multiple choice questions to identify gaps when consolidating.

Drag-and-Drop

Students unanimously like this online interactive learning tool. They felt these activities were fun and a good way to check understanding. The fact that they can be completed relatively quickly meant that students could complete them in small amount of study time they had available. The only difficulty students experienced was when the formatting meant that

they had to scroll up and down to see the whole activity. This also made it difficult to 'drop' items in the right place.

Multiple Choice Questions

Students valued these to check their understanding, recap topics, consolidate and identify any gaps in learning. One student advised that these questions were good when time is limited as the activities could be started and returned to later. Another advised that these types of questions helped them to develop the skill of reading questions very carefully to ensure that the correct answer was selected.

One student stated that they would 'like to see more short activities' (Student 1.4).

Grids and Diagrams to Complete

The completion of grids received a mixed response. One student said that they always use a grid when planning answers to problem questions whilst another preferred using mind maps and so did not really engage with grids.

Students were shown an example of a diagram for completion from the B100 materials, and some said they would find this helpful, particularly if they were able to download it and retain it within their notes. Overall, the completion of these types of online interactive learning tools seemed to vary depending on students' preferred methods of notetaking and planning.

Forums

Both business and law students were reticent about forum activities. Some advised that they liked to engage with the forum whilst others stated that they preferred to discuss the course with those they were friends with outside of the Open University forums. There was a general nervousness about posting on discussion forums where other students could read and comment on work. Students liked the fact that this was optional on W101 and did not contribute to their overall module grade.

External Resources and Library Research

Students advised that they experienced some difficulties with website links as some had changed or been removed. They like this type of resource but find it frustrating when a link did not work.

W101 students were given activities to help them use legal databases to access specific materials via the Open University online Library. Students said that this was useful, and that the step-by-step guidance is essential to help them build the skill of finding resources in this way. One student advised that they revisited these online interactive learning tools as a reminder of the process to follow to find resources. However, it was felt that too many of these activities would cause students to get 'bogged down' (Student 4.1) as they would have to keep going outside of the course materials at a stage where this was not required.

Time Spent

Participants reported that the time they spent engaging with online interactive learning tools did not change significantly throughout the course. Where they found they had little time available they would focus on the shorter activities but generally would complete most. It was agreed that having a suggested length of time to spend on each activity was a useful feature, one student commented that it stopped them 'spending an hour and a half on a 20-minute activity' (Student 4.2). Another student said that they often spent longer on each activity than the time suggested but agreed that the timings were a useful guide.

Business

Business students attending the focus groups received overall grades for B100 ranging from 66 to 84%.

Free-Text Activities

Like the law students, business students valued the feedback provided, which allowed them to reflect on their answers. One participant confessed that they 'could be tempted to cheat!' (Student 2.3) However, the fact that the feedback was being accessed and used to consider how to successfully answer a question was still a useful resource.

The way in which students used the activities varied, some using the text box provided whilst others preferred to write their answers onto paper in the form of a mind map and then type a more limited amount into the box. One student advised that they 'rarely complete the online activities. I will watch the video or read the case study but rarely complete them. I think about them and then just click reveal feedback… to see if it matches my thoughts' (Student 3.2). It is clear, however, that all students engaged with the feedback regardless of the way in which they used the text box provided and agreed that this was the most useful aspect of the activities. It was agreed that the feedback gave greater insight into areas students might not have considered and provided immediate guidance where they were struggling. It was also a resource for students to return to when preparing assignments.

Students agreed that word counts, particularly for short answer questions, would be useful preparation for assignments by giving practice at writing succinctly. One participant also noted that this would also be a useful guide as to how much information to include for students who have not studied for a while.

Videos

B100 students were asked to comment on an online interactive learning tool where they were required to watch a video. Responses to this were mixed with some enjoying the audio/visual component but on advising that they tend to use the transcript instead. Students who watched the resource would take notes and then use these notes to complete the activity. One student advised that they would prefer multiple choice questions to text-based activities to help identify and consolidate the key aspects of the resource.

Drag and Drop

Students reported that they enjoy this sort of activity. They are good for defining terms and to 'get the brain working' (Student 3.1). They are particularly useful as a short activity to consolidate knowledge.

The only negative comments about drag-and-drop activities were related to their functionality. One student found it annoying that they could not be accessed on the study app, and another advised that they do not always work well on an iPad/tablet.

Multiple Choice Questions

There were mixed feelings about multiple choice questions on B100. Some students advised that they would be useful to pick out points from a resource. However, the activity displayed in the focus group was a survey-style questionnaire where students were asked whether they agreed or disagreed with the statements. Some students enjoyed this whilst one felt it was 'not useful when writing a TMA' (Student 3.3), and another stated that they avoided this type of activity because they 'always ended up in the middle' (Student 3.1) not having strong feelings either way. It was generally agreed that multiple choice questions could be useful but that it 'depends on the context' (Student 2.3).

Interactive Diagrams

Students advised that these were 'quite good' (Student 2.1) and 'useful when looking at concepts' (Student 2.2) but could be 'not very user-,friendly, quite fiddly' (Student 2.3) to complete online. That said, their transferability to the workplace was recognised with one student stating that they sometimes blank out the contents and apply them within the workplace.

Websites and Databases

Students enjoyed looking at external resources but agreed that it would be much easier if the links opened up in a separate tab as it is very difficult to navigate back to the course page and they would like to have both resources open at once.

B100 students were asked if they would enjoy having library activities to complete and they agreed that a requirement to search the library would be useful as opposed to being provided with links to all the required resources.

Forum Activities

It is a compulsory element of B100 to take part in forum discussions and these form part of the assessed work.

Only one student was particularly positive about forum activities, advising that they '…found these really helpful… (there was) a fair

amount of healthy discussion about different ideas on my tutor group forum… it makes you see different views' (Student 3.2).

Other students advised that they find the forums 'intimidating' (Student 2.1) and 'painful' (Student 2.3). One student stated that they 'do the forum activities but don't like responding to others' (Student 3.1). Another said that they 'read what others have written and don't comment' (Student 2.1). There was also a feeling that students 'just agree' and 'piggyback off peers' responses' (Student 3.1), and that this diminishes the value of the discussions.

Conclusions Drawn from the Focus Groups

- Students value the feedback provided. This can be used in different ways depending on how students decide to engage with the activity.
- Word counts are a good means of helping to develop the skill of writing succinctly and including only relevant information.
- Students enjoy short activities such as drag and drop and will engage with these even if time is short. Students would like to see more short activities being built into the module materials.
- Multiple choice questions are popular when used to consolidate, check knowledge, and identify gaps. They can also help students to develop the skill of identifying what a question is asking.
- Diagrams and grids are used to a varying degree by different students depending on their preferences for notetaking and planning answers.
- External resources such as videos and websites are a good means of variation but are, again, used in different ways by students depending on their preferences for learning.
- Students value the opportunity to engage with the library resources.
- The least valued type of activity is contributing to group forums. Whilst some students find the discussion useful, the majority attending focus groups did not like contributing and reported limited value in the discussions.
- Students found it frustrating when tasks were difficult to complete for technical reasons, and when links were not working.

One student summed up the discussions best in stating that the '…variety of interactivities helps me enjoy learning' (Student 3.3).

Outcomes and Conclusions

The outcomes from this project have already influenced module development and continue to inform decisions by modules authors on the incorporation of digital interaction. Findings are enabling module teams to build resources in a way which is most effective for students' overall achievement and progression, enhancing the overall student experience by presenting materials in an engaging and motivational way and ensuring that study time is most effectively applied.

Where this guidance has been applied on new modules, the following impact is evident (and can be partly attributed to this research):

- An increase in retention;
- An increase in first time pass rates;
- An increase in first time completion.

The research outlined in this chapter gives a good indication of the types of digital interaction students engage with, enjoy, and value as part of their learning experience. However, the fact that technology, and our understanding of the use of technology in pedagogy, is constantly developing means that any such research will always become dated relatively quickly if applied rigidly to specific types of interactivities. For example, since evaluating our findings, the Open University: Learning and Discovery Services have moved away from the use of drag-and-drop activities for inclusivity reasons; these are not easy for some students to access and operate. Instead, the university is opting to use activities such as drop-down options from which students can select a correct answer.

Additionally, the current speedy development of generative artificial intelligence (GAI) will inevitably affect the way in which students interact with learning tools. Looking forward, it is envisaged that students will be able to use GAI to enhance learning by creating their own resources, generating interactive discussions, and learning how to make use of GAI in professional settings (see Chapter 3 for further details on this). The activities built into module materials will need to take advantage of these capabilities to ensure that course content is relevant to the modern student, is making the best use of available learning technology, and that students are developing skills that will be required in their future employment.

Nonetheless, whilst the types of activity may vary as digital learning tools develop, the principles derived from this study will, we believe, remain useful and relevant. For example, one important finding is that a barrier to student interaction is the reliability and availability of technology. In developing new and enhanced ways of learning, authors will need to ensure that activities are developed in a way which is reliable, easy to operate for all student groups using different devices and equitable, by ensuring that all students are able to access the full range of activities. Another important finding is that students enjoy short interactive tasks which allow them to check knowledge and consolidate. Again, these findings can be applied to newer and enhanced delivery tools, as can the requirement for detailed and immediate feedback and the inclusion of suggested timings. Both the questionnaire and focus groups demonstrate that, overall, students value the inclusion of interactivities within their course materials, and that they engage with these to the extent that they are able to. Where interaction increased as study progressed, this was a result of growing motivation and confidence in the course as well as the more detailed and time-consuming nature of the activities as the course content became more detailed. Students reported that the variety of activities, as well as the requirement to undertake tasks rather than being provided with solely written materials, led to enhanced engagement and active learning. Restrictions on engagement generally related to the time students had available. Those students reporting that they did not value the activities cited the fact that they did not find them sufficiently challenging.

One of the main motivators for students in completing interactivities is the availability of immediate feedback. Such feedback builds students' confidence in their answers, allowing them to receive guidance without awaiting the outcome of an assignment, and to recognise gaps in their own learning without the 'cost' of this affecting their overall grade. Students also advised that this feedback enabled them to build skills and that returning to the activities served as a useful point of reference when completing assignments. This is perhaps a key area in which AI (Artificial Intelligence) could be used in the future, as several studies in Chapter 3 (this volume) report.

Comments show that students like to engage with a variety of different types of activities. Free-text answers are seen as a useful means of developing skills and receiving feedback. However, they find it useful to have

shorter activities, for example drag-and-drop activities, within the materials to break up the reading, add some fun, check knowledge, and allow them to undertake a useful activity within a small amount of available study time. Multiple choice questions are also viewed as a useful means of checking knowledge and for consolidation at the end of units of learning.

The most common barrier to using the activities are computer issues including the lack of availability of the activities on different devices, activities not being able to fit on the screen resulting in tricky scrolling, links opening in separate tabs resulting in navigation difficulties and not being able to access activities using the OU (Open University) Study app.

As technology develops, it is acknowledged that the types of activities students are asked to engage with may vary. However, the principles and recommendations from the report will remain relevant when applied to new technologies.

Tips

One of the main aims of the project was to inform the development of Open University modules, particularly on the new law degree which has undergone a substantial re-write. Our recommendations to module authors are as follows:

1. Ensure that online interactive learning tools are an integral consideration when authoring materials. These are highly valued by students, but the use and placement are factors in determining engagement.
2. Variety is key. It is advisable to include a number of short activities throughout the materials, but also longer drafting activities to help students to develop skills. Multiple choice questions are highly valued as a means of checking knowledge and reflecting on which areas of a unit to re-visit.
3. When considering the use of forum activities (and in particular compulsory posts on forums) ensure that there is real value to the students in terms of their intended outcome. Students can find these activities daunting and often lacking value. However, where there is genuine discussion generated and a link building a skill such as critical engagement, they can be viewed as useful.
4. With time being a key constraint, consider the length and depth of activities within the wider context of the course. If, for instance, it is a heavy reading week or an assignment is coming up, students are

less likely to have the time available to complete lengthy activities but may still engage with shorter interactions.
5. Consider whether it is appropriate to include additional, optional activities to challenge those who may require an additional content and depth to keep them engaged and motivated.
6. Ensure that feedback is provided for activities students have undertaken, and that this is sufficient to help them reflect on where they have achieved what was required, and the improvements that they could have made.
7. Be sure to include an indication of how long an activity is likely to take, as well as a suggested word count where the activity requires the use of free text.
8. Liaise with the relevant department if you are unsure of how an intended activity will function, or how it will appear so that activities can be drafted in a way enables them to be visible on one screen without scrolling.

Discussion Points

- The benefits of integrating generative AI into the curriculum and the ways in which skills can be developed using digital interactive learning tools.
- The transferability of the findings and tips from this study to new learning technologies and interactive learning options as they develop.
- The transferability of the findings to different delivery models, for example blended learning and face-to-face courses, and to disciplines outside of business and law.
- How GAI can be used to create digital interactive learning activities, for example, for creating feedback and multiple choice questions.

Appendix: Questionnaire

1. Which of the following Level 1 modules have you completed?

   a. B100
   b. W101

2. Was this the first module you studied with the OU?

Yes/No

3. When working through the online materials on your module website, which type of activity did you make use of?

   a. Quizzes/multiple choice questions;
   b. Drag and drop;
   c. Completing tables and diagrams;
   d. Case studies;
   e. Reflective activities;
   f. Typed response answers;
   g. Forum activities;
   h. Links to Study Skills materials;
   i. Other.....

4. Please rate how valuable you found each type of activity:

Activity	*Very*	*Fairly*	*Not very*	*Not at all*	*Not applicable*	*Comment*
Quizzes/multiple choice questions						
Drag and drop						
Completing tables and diagrams						
Case studies						
Reflective activities						
Typed response answers						
Forum activities						
Other (please specify)						

5. Did the time spent using interactive materials change throughout the course?

Time spent: Increased/Decreased/Stayed the same

6. If you have indicated above that the time spent on interactive resources altered throughout the course, please explain why.

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7. Has the way in which you have used interactive resources altered the course?

Yes/No

8. If you have answered 'yes' to question 7, please explain how.

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9. Overall, do you feel that online interactivities have enhanced your learning?

Yes/No

10. Please explain your answer to question 9.

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(PI for the prize draw).

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CHAPTER 6

Teaching Skills Online in the BA in Business Studies

Alessandro Saroli

Introduction

This chapter presents the findings of a study conducted to analyse how the development of cognitive, professional, and key skills is embedded in the learning design of the BA (Honours) Business and Management degree qualification (Q91) at The Open University, both at module and qualification level.

Skills development features prominently amongst the benefits that the Q91 qualification promises to deliver to students. So, the qualification website makes explicit reference to the development of skills required to target a 'wide range of employment opportunities across all sectors', whilst the Intended Learning Outcomes (ILOs) of the degree reiterate that 'the qualification will provide…. a broad range of important business and graduate skills, which [students] can bring to [their] employment in business management more widely'.

In addition to knowledge and understanding of course material, learning design and constructive alignment at module and qualification

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level are meant to contribute to a broad set of cognitive, professional/practical, and key skills relevant and useful for career development purposes.

However, feedback from tutors and evidence from assessment indicate that, upon completion, only a minority of Q91 students manage to progress along the whole spectrum of Bloom's taxonomy of skills, by acquiring and providing evidence both of lower (concrete thinking, memorisation, understanding) and higher order thinking ones (abstract, critical, metacognitive, creative thinking).

This study was conducted to investigate possible reasons for discrepancy between ILOs and actual performance with regard to skills development, whether this could be related to issues with learning design or lack of constructive alignment, or other factors should be considered.

Literature Review

Since its publication in 1956, Bloom's taxonomy of educational objectives, either in its original or revised version and despite challenges and criticism (Marzano, 2001; Pring, 1971; Sockett, 1971), has become a widely used framework for classifying educational goals and for curriculum planning purposes, in terms of what students are expected to achieve as a result of instruction (Krathwohl, 2002).

According to Bloom, learning involves three domains, respectively the cognitive, the affective, and the psychomotor (Churches, 2008, p. 3). Bloom's taxonomy relates to the cognitive domain and the ways in which learners process information. Bloom conceptualised the thinking process as a hierarchical process, in terms of six categories, over a continuum from lower to higher thinking skills, from remembering to evaluating, with each category identified by a noun (Bloom et al., 1956).

A revision by Anderson and Krathwohl (2001) saw verbs replacing nouns, whilst the sequence of categories in the taxonomy was rearranged, with creation (or creating in the revised version) gaining top position as a higher order thinking skill instead of evaluation/evaluating (Fig. 6.1).

Even if not every learner may go through each one of its stages all the time or feel the need to reach the creation level for every learning task and process, the taxonomy is still seen as a useful representation of the mental skills required to progress from lower to higher thinking and 'provides a useful framework for creating and deciding upon appropriate

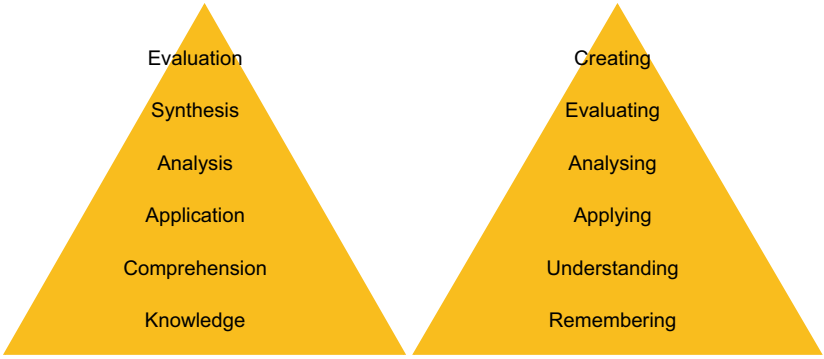

Fig. 6.1 Original v revised version of Bloom's taxonomy (*Source* Adapted from Munzenmaier and Rubin ([2013])

activities to engage students in meaningful and deep learning experiences' (Munzenmaier & Rubin, 2013, p. 24).

More recently, an extension of the taxonomy was also proposed, to reflect the new processes and affordances enabled by digital technologies and their impact on learners, as well as new digital cognitive objectives, such as collaboration online, now included both as a separate element and by sharing elements with other categories of the taxonomy, as illustrated in Fig. 6.2. Although not part of the learning process, collaboration is seen as an increasingly important skill for facilitating the development of higher order thinking and learning (Churches, 2008). Likewise, whilst Artificial Intelligence (AI) is often seen as a challenge to education providers, its integration into the digital learning process can open up new opportunities for learning, thanks to its adaptability and potential for personalisation of the learner's experience. By interacting with AI models, students are expected to be able to ask questions to and receive personalised feedback and guidance from virtual mentors. Interaction would be tailored to individual needs, thanks to the ability of AI models to analyse and adjust to individual learning patterns, whilst engagement in interactive and open-ended conversations with AI-powered models should foster critical thinking and creativity, thus enabling students to progress to higher order levels of the taxonomy.

Bloom's taxonomy, in its revised or digital version, is therefore used in curriculum planning to identify the level of learning or thinking that is

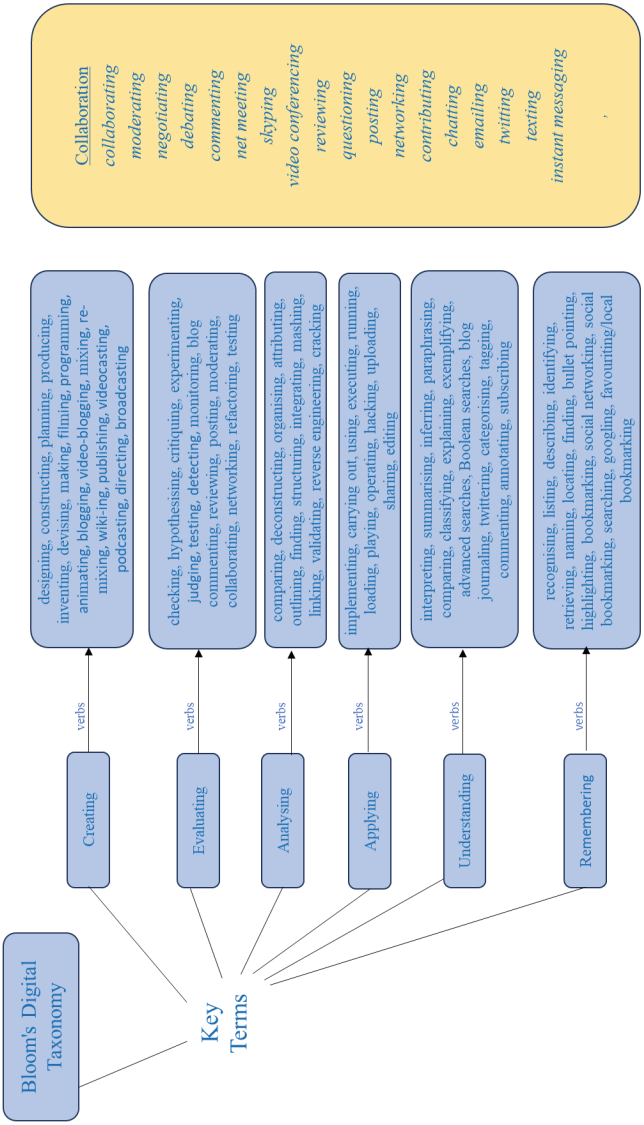

Fig. 6.2 Bloom's digital taxonomy (*Source* Churches [2008, p. 5])

desired/expected of students, then selecting and using the action verb or type of activity which better describes what learners should do to demonstrate that level of learning or thinking (Munzenmaier & Rubin, 2013). As such, the taxonomy is useful not only to articulate a range of learning outcomes that students are expected to achieve, but also to design activities aligned with those learning outcomes as well as assessment strategies aimed at measuring achievement (Munzenmaier & Rubin, 2013).

Bloom's taxonomy is widely used in learning design 'to help designing for learning in a way that is both pedagogically informed and makes appropriate use of technology' (Conole, 2014, p. 502) through learning practices that enable to 'think beyond content to the activities to engage with, as well as the overall learner experience' (Conole, 2014 p. 502). Core to effective learning design is the alignment of teaching and assessment to ILOs, commonly referred to as constructive alignment. Constructive alignment through learning design is therefore seen as the way to elicit a deep student learning experience (Marton & Säljö, 1976).

Even so, however, learning design remains exposed to criticism that, as early as in the 1990s, some theorists raised against instructional design, for taking 'little account of the results of cognitive psychological research on learning processes' (Vermunt, 1998, p. 150). Claims by constructivists such as Duffy and Jonassen (1992) that learning is a self-directed as opposed to an externally directed process would seem to undermine the assumption that the learning designer can or should tell the learner how to behave to achieve learning outcomes. Far from leading to a deep approach to learning, activities and didactic aids commonly used, especially in digital education, to influence the learning process and the way learners process information, rather seem to induce a range of learning regulation activities that vary according to individual learning orientations, intended as the 'whole domain of personal goals, intentions, motives, expectations, attitudes, worries and doubts of students in doing courses or studies' (Vermunt, 1998, p. 151). The role of personal motivation and objectives on a student's approach to learning is acknowledged in the literature (Biggs, 1996; Entwistle, 1998; Marton & Säljö, 1976). However, the limitations that this raises for the effectiveness of learning design and the meaningfulness of constructive alignment do not seem to receive sufficient attention either in literature or in practice.

Methods

This study aimed to review the degree to which the skills required to meet the ILOs of the qualification are taught, developed, and assessed coherently, and to investigate whether those skills are developed gradually and consistently across all three levels of the OU's Undergraduate Qualification Framework (Table 6.1 reconciles the OU's Framework with those of England, Wales, and Northern Ireland and that of Scotland respectively).

Students can study Q91 by choosing one of ten different pathways, each one with different optional modules. For practical reasons of time and capacity, it was decided to focus only on three core modules of the qualification, one per each level of the framework:

- Level 1 B100 Introduction to Business and Management;
- Level 2 B207 Shaping Business Opportunities;
- Level 3 B302 Strategic Management.

To start with, the role of skills development in the Q91 qualification was reviewed, along with the ILOs of the three core modules and those of the qualification as a whole. This is illustrated in Fig. 6.3, with regard to level 2 core module B207.

The extent to which the development of cognitive, professional/practical, and key skills is embedded and scaffolded in module activities was then assessed, including evaluating coherence with module level and consistency across modules, as a requirement for facilitating progression from one level to the next and in line with Bloom's taxonomy. Table 6.2 illustrates the process with regard to level 1 core module B100.

The author then reviewed how skills are embedded in assessment, either explicitly or implicitly, and how much evidence of achievement against each skill contributes to final results. This was done by looking at assignment questions to identify process words which can be regarded as proxies of the skill(s) assessed by each question in line with Bloom's taxonomy, and then using marks per question as weights for calculating the relative incidence of each skill in the scoring scheme of each module. Here too, an illustration is provided in Table 6.3, with regard to level 3 core module B302.

Finally, as the learning design of skills development relies on students completing VLE (Virtual Learning Environment) module activities (as illustrated in Table 5.2), the author used the VLE Tools Usage facility of

Table 6.1 Comparing higher education qualification frameworks and levels—England, Wales, and Northern Ireland (FHEQ) v OU v Scotland (SCQF)

Qualifications	*Credits*	*FHEQ level 4*	*FHEQ level 5*	*FHEQ level 6*	*FHEQ level 7*
		OU level 1	OU level 2	OU level 3	OU level M
		SCQF level 7	SCQF level 8 or 9	SCQF level 10	SCQF level 11
Master's Degree/Professional master's degree	180				150
Integrated Master's	480	120	120	120	120
Postgraduate Diploma	120				90
Professional Diploma	60				60
Postgraduate Certificate	60				60
Honours Degree	360	120	120	120	
Ordinary Degree	300	120	120	60*	
Honours Degree (Scotland)	480	120	120	120	
		Plus 120 credits at OU level 1 or above			
Ordinary Degree (Scotland)		120	120 level 8 60 level 9		
		Plus 60 credits at OU level 1 or above			
Graduate Diploma	120			120*	
Graduate Certificate	60			60*	
Professional Graduate Certificate in Education	120			120*	
Foundation Degree	240	120	120		

(continued)

Table 6.1 (continued)

Qualifications	*Credits*	*FHEQ level 4*	*FHEQ level 5*	*FHEQ level 6*	*FHEQ level 7*
Diploma of HE (Higher Education)	240	120	120		
Certificate of HE	120	120			
Diploma (2 models)	120		120		
		Or	60	60	
Professional Certificate	60		60		
Certificate	60	60	or 60		

Note.*Requirement against SCQF is for level 9 minimum although OU Framework requires a higher level to comply with FHEQ. **Requirement for validated provision is minimum of 60 credits at this level, with 60 credits elsewhere

Learning Outcomes	iCMA (5% of marks)	TMA01 (10% of marks)	TMA02 (17.5% of marks)	TMA03 (17.5% of marks)	EMA (50% of marks)
		Part A: - 3 questions, 1000 words **Part B**: - 1 question, 200 words	**Part A:** - 3 questions, 1500 words **Part B:** - 1 question, 250 words **Part C:** - 1 question, 250 words	**Part A:** - 3 questions, 1500 words **Part B:** - 1 question, 250 words **Part C:** - 1 question, 250 words	**Part A:** - 3 questions, 2400 words **Part B:** - 2 questions, 300 words **Part C:** - 1 question, 300 words
LO1 - knowledge and critical understanding of key concepts	N/A	**Part A:** Q1: 375 words Process words: evaluate Q2: 315 words Process words: identify Q3: 315 words Process words: describe	**Part A:** Q1: 500 words Process words: identify, discuss Q2: 500 words Process words: explore Q3: 500 words Process words: identify, discuss	**Part A:** Q1: 500 words Process words: identify Q2: 500 words Process words: identify, recommend Q3: 500 words Process words: describe	**Part A:** Q1: 800 words Process words: explain, integrate (evidence) Q2: 800 words Process words: identify, discuss, integrate (evidence) Q3: 800 words Process words: explain
LO2 - ability to apply module concepts to a practical situation like in a case study (a different one for each TMA)					
LO3 - ability to select information from a case study, and develop arguments based on that selection	N/A				
LO4 - ability to find and interpret additional information online	N/A				
LO5 - integration of ideas and reflection on learning	N/A	**Part B:** Q4: 200 words Process words: create (a mind map)	**Part B:** Q4: 250 words Process words: create (a mind map)	**Part B:** Q4: 250 words Process words: create (a mind map)	**Part B:** Q4: 150 words Process words: create (presentation) Q5: 150 words Process words: analyse
LO7 - ability to use academic and business and management language appropriately and effectively to communicate ideas	N/A	**Part A and B**	**Part A, B and C**	**Part A, B and C**	**Part A, B and C**
LO8 - good academic practice in citing sources of information appropriately	N/A	**Part A and B**	**Part A, B and C**	**Part A, B and C**	**Part A, B and C**
LO9 - ability to reflect on skills development and prepare presentations	N/A	N/A	**Part C:** Q5: 250 words Process words: reflect, explain	**Part C:** Q5: 250 words Process words: identify, describe	**Part 3:** Q5: 300 words Process words: reflect

Legend: iCMA stands for interactive Computer-Marked Assignment, TMA stands for Tutor-Marked Assignment

Fig. 6.3 B207 Shaping business opportunities—mapping ILOs against assessment (*Note* iCMA stands for interactive Computer-Marked Assignment, TMA stands for Tutor-Marked Assignment)

Table 6.2 B100 Introduction to business and management—skills development activities by presentation block/week

B100 Introduction to Business and Management		
Skill	***Block 1 Week 1—Session 1***	***200 minutes***
Time management	Activity 1.2—Planning study time	30 minutes
Efficient and active reading Use language effectively	Activity 1.6 Critical reading techniques—points to Skills for OU study website	150 minutes
Information literacy	Activity 1.7 Search for stories about business and management from multiple sources and then choose one and explain how it relates to business and management	20 minutes
	Block 1 Week 2– Session 2	**90 minutes**
Working with case studies	Activity 2.1 Interpreting case study information	15 minutes
Good academic practice	Activity 2.2 What is a case study?	10 minutes
Application of concepts to case studies	Activity 2.3 Analysing a case study in terms of the concepts studied	30 minutes
Numeracy / quantitative skills	Activity 2.5 Questionnaire on quantitative skills	15 minutes
Reflection on learning	Activity 2.8 What I have learned this week	20 minutes
	Block 1 Week 3—Session 3	**230 minutes**
Study Skills Use language effectively	Activity 3.3 Note taking techniques Points to Skills for OU Study website	35 minutes
……	….	……

Table 6.3 B302 Strategy management

Process words	*TMA01 (15%)*	*TMA02 (20%)*	*TMA03 (25%)*	*EMA (40%)*	*Total*
Write a report				45.0%	18.0%
Recommend			37.5%		9.4%
Identify				15.0%	6.0%
Evaluate	30.0%		15.0%	20.0%	16.3%
Discuss	27.5%	12.5%			6.6%
Apply		20.0%			4.0%
Reflect	15.0%	15.0%	15.0%	20.0%	17.0%
Analyse	27.5%	52.5%	32.5%		22.8%
					100%

Note TMA stands for Tutor-Marked Assignment, EMA stands for End of Module Assessment

the OU's Module Performance Dashboard to collect and review evidence of student engagement with Q91 core modules' VLE activities. This is illustrated in Fig. 6.4.

The following section presents key findings and results of the analysis.

Results

Evidence from the Q91 qualification website shows that induction materials introduce students to the OU's Undergraduate Qualification Framework and explain key differences in studying at level 1, 2, and 3. Induction materials also introduce students to how ILOs change from one level to the other, by means of an adaptation of Bloom's taxonomy of learning, as illustrated in Table 6.4.

Consistent with the taxonomy, the qualification site also explains key differences in assessment across levels. So, at level 1, emphasis is on developing good academic practice and study skills, with guidance provided about what material should be included and how it should be approached, whereas at levels 2 and 3 greater freedom is allowed in how to approach questions whilst providing evidence of and further developing academic skills, for example, referencing, structure, and analysis. Significant emphasis on higher order skills like critical analysis and critical thinking also starts to be placed at level 2, to then receive further attention at level 3, where student work culminates in collaborative work and even the co-creation of group deliverables.

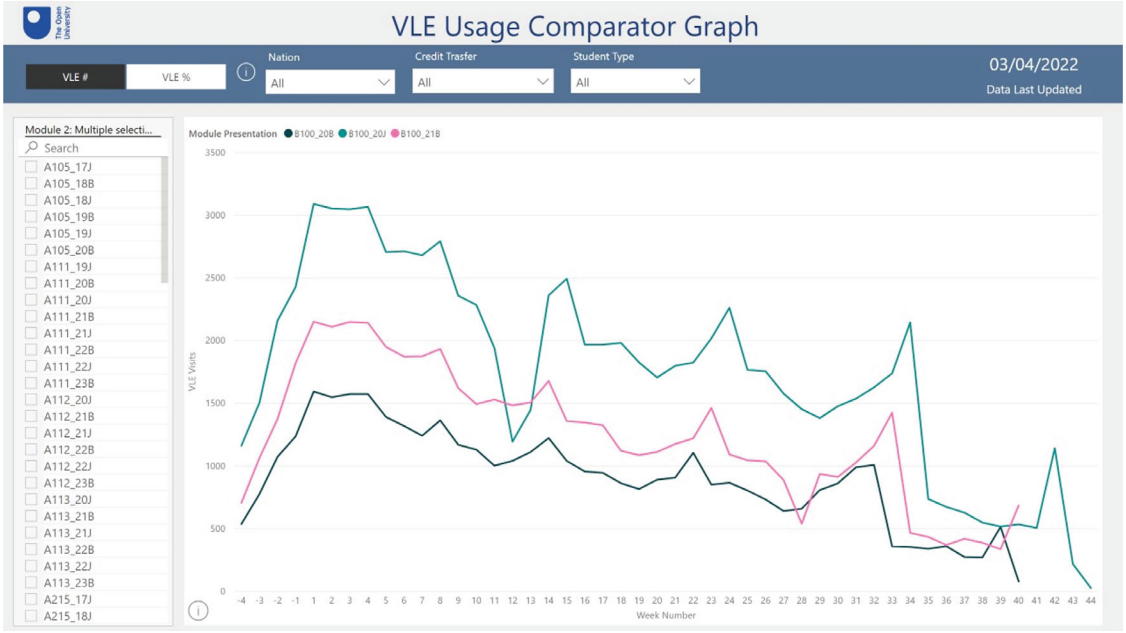

Fig. 6.4 VLE usage comparator—B100 20B v B100 20 J v B100 21B presentation

Table 6.4 Q91—Taxonomy of learning (adapted from Bloom)

Taxonomy of learning by qualification level	
Remembering Recall or retrieve previous learned information	Level 1: you learn and remember a range of essential basic principles and ideas that are presented to you
Understanding Comprehend the meaning, translation, interpolation and interpretation of instructions and problems. State a problem in one's own words	Level 1: you begin to interpret some of the basic ideas and concepts. Ready to develop your understanding further in level 2 Level 2: you begin to restate and explain ideas more in your own words. These ideas are taken further in level 3
Applying Use a concept in a new situation or unprompted use of an abstraction. Apply what was learnt in theory to new situations in the workplace	Level 1: you get to try out the models in basic case studies with fairly clear boundaries and guidance Level 2: your application of the models and concepts is taken further with looser boundaries and more personal choice Level 3: you are expected to apply models critically, justifying your choices. The guidance is much looser and the boundaries much broader
Analysing Separate material or concepts into component parts so that its organisational structure may be understood. Distinguish between facts and inferences	Level 2: you are analysing situations, issues, and problems using models you have learnt. You are expected to present recommendations and solutions based on your analysis. At level 2 you are expected to discuss any strengths, weaknesses, and limitations of the analysis Level 3: your analysis will be chosen to be appropriate for the problem, issue, or argument being made. Any recommendations or conclusions presented will be fully justified and considered from multiple perspectives

(continued)

Table 6.4 (continued)

Taxonomy of learning by qualification level	
Evaluating Make judgements about the value of ideas or materials	Level 2: as part of your analysis, you will be making judgements as to the value of the models, concepts and theories being used along with the information being included. You will be considering the validity of your sources Level 3: the validity of models and frameworks will be considered as part of your analysis. You may well combine models to form new models. The use of models will be adapted to suit the purpose and the value added to the argument or conclusion will be considered
Creating Build a structure or pattern from diverse elements. Put parts together to form a whole, with emphasis on creating a new meaning or structure	Level 3: through the formative assessment process you are expected to create new and personal outcomes. Much of the focus on level 3 is the creation of new solutions to problems

Source Undergraduate business\Discover\Step up to Level 2\Session 1 Learning outcomes: Level 1 to Level 2\Progressing through the levels, as Session 1 Learning outcomes: Level 2 to Level 3: Progressing through the levels (open.ac.uk)

In each module, students are presented with the specific skills which they need to develop, whilst module design maps out where each skill is going to be developed and practised. Initially, module guides offer advice and guidance by using activities, for example by offering sample answers. However, as students progress through individual modules and across levels from level 1 to level 3, the extent of that guidance decreases, in order to encourage independent learning.

Evidence from mapping the skills developed by each module against the activities embedded in the design of the relevant module, as illustrated in Table 6.2, showed that despite minor differences in definitions and terminology, the three core modules take a consistent approach to skills development. Accounting for approximately 306 hours of student work on module activities altogether, it is apparent that skills development is central to the design of the learning experience, both at module and qualification level.

Figure 6.5 shows how, moving from level 1 module B100 (the orange bar) to level 2 module B207 (the grey bar) and then level 3 module B302 (the yellow bar), students are asked to spend increasingly more time on activities aimed at developing critical analysis and critical thinking, applying conceptual knowledge to practical situations (case studies) and even co-creating knowledge and insights through collaborative work.

This found confirmation in the extent to which evidence of achievement against individual ILOs and skills informs assessment at different levels, for example with higher order learning outcomes and skills accounting for higher percentages of scores in level 3 module B302 than in level 2 module B207, as illustrated in Fig. 6.6.

As they progress through qualification levels, students are expected to demonstrate ability to apply both lower and higher order thinking skills (Anderson & Kaftwohl, 2001). In Q91, this is confirmed by the increasing importance of higher order skills required to do well in assessment and achieve higher scores in marking schemes. To support students, the learning design of modules like B207 and B302 allocates an increasing amount of time to activities aimed at developing those skills, thus showing constructive alignment between learning design and assessment.

Throughout Q91, the development of skills is scaffolded in digital activities embedded in each module's VLE, which students are asked

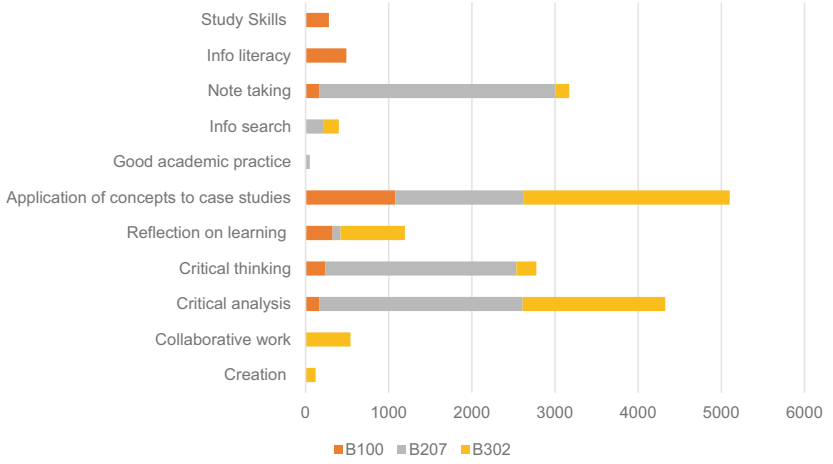

Fig. 6.5 Q91—Time (minutes) allocated to skills development by core module

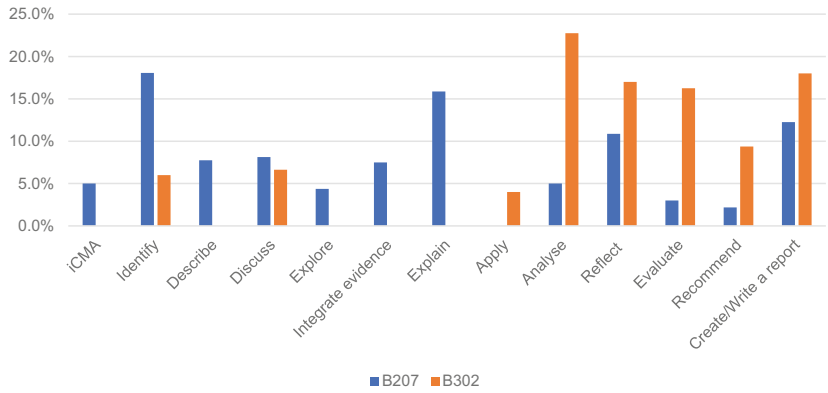

Fig. 6.6 Relative weight of individual ILOs and skills on module score (B207 v B302)

to complete alongside studying module contents, with a view to becoming self-regulated, reflexive independent learners (Zimmerman, 2001). Evidence of a coherent and integrated approach to skills development both in learning design (Conole & Wills, 2013) and assessment (Nicol, 2007) was therefore found by the study, along with alignment with Bloom's taxonomy of learning (Anderson & Kraftwohl, 2001) across levels.

At the same time, however, feedback from tutors and assessment results indicate that students continue to have difficulties in demonstrating confident use of their skills in practice, not only at the higher end of Bloom's taxonomy but also, quite frequently, at the lower end of it. This raises questions as to whether sound learning design and constructive alignment are sufficient to elicit deep student learning and high performance.

The following section attempts to address such questions by investigating student engagement with VLE materials throughout the presentation of the three core modules of the qualification. As skills development rests largely on activities presented on the VLE, student engagement with those activities is a necessary condition for meeting relevant learning objectives. To this end, the study uses module-specific data available through The Open University's Module Performance Dashboard, an interactive dashboard that allows to filter and explore themed module data (e.g., key metrics, student profile, assessment, retention, student

satisfaction) in detail, including trend and up to date information about module performance and comparative views of performance against other modules or at qualification level.

Student Engagement with VLE Activities and Tools

For each core module of the qualification, Figs. 6.7, 6.8, and 6.9 illustrate the degree and pattern of student engagement with the respective module VLE over two or three presentations, starting with October 2019.

As shown, student engagement with the VLE revealed a tendency to drop dramatically and constantly after the first four weeks of each module's presentation, except for regular spikes in activity, albeit of gradually decreasing intensity, in the run up to assignment deadlines.

This was common to all three modules and across presentations, with the slightly higher level of engagement in the 20 J[1] presentation of B207 and B302, possibly due to the negative impact of the COVID-19 pandemic on the 19 J presentation of the same modules.

Tabulated data in Table 6.5 offers further illustration, in relation to module B100, of how student visits to the VLE tend to drop significantly after the initial Blocks and Sessions of the presentation, with only very limited evidence of student engagement with online activities designed to facilitate and support the development of skills. Similar trends are evidenced by equivalent tabulations with regard to modules B207 and B302.

This evidence of limited and uneven student engagement with the activities designed to support skills development raises concerns that the metacognitive process predicated on the 'dynamic link between personal, situational, process, and outcome variables' (Biggs, 1985, p. 191) that underpins the learning design of the qualification may be neither activated nor fulfilled. Surface approaches to learning are hard to reconcile with the constructivist premises of the qualification's learning design and the effectiveness of constructive alignment. By paraphrasing Marton and Säljö (1976), a student's approach to learning precedes and is responsible for the outcome (in Entwistle, 1998, p. 5). If greater student engagement with skills development activities is needed in order to deliver

[1] In the OU's coding of presentation, 20J indicates a presentation that started in October 2020, with the figure representing the year and the letter the month (J being the 10th letter of the English alphabet) when the presentation started.

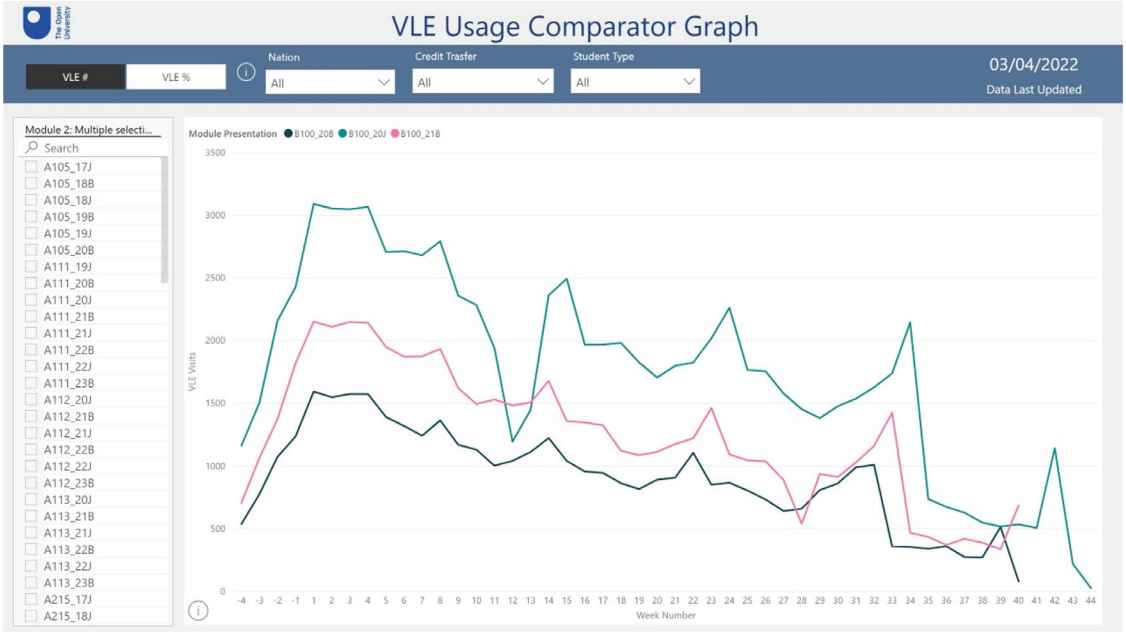

Fig. 6.7 VLE usage comparator: B100 20B v B100 20 J v B100 21B (*Source* The Open University: Module Performance Dashboard, VLE Comparator B100 20B, 20 J, 21B, accessible at VLE - Power BI)

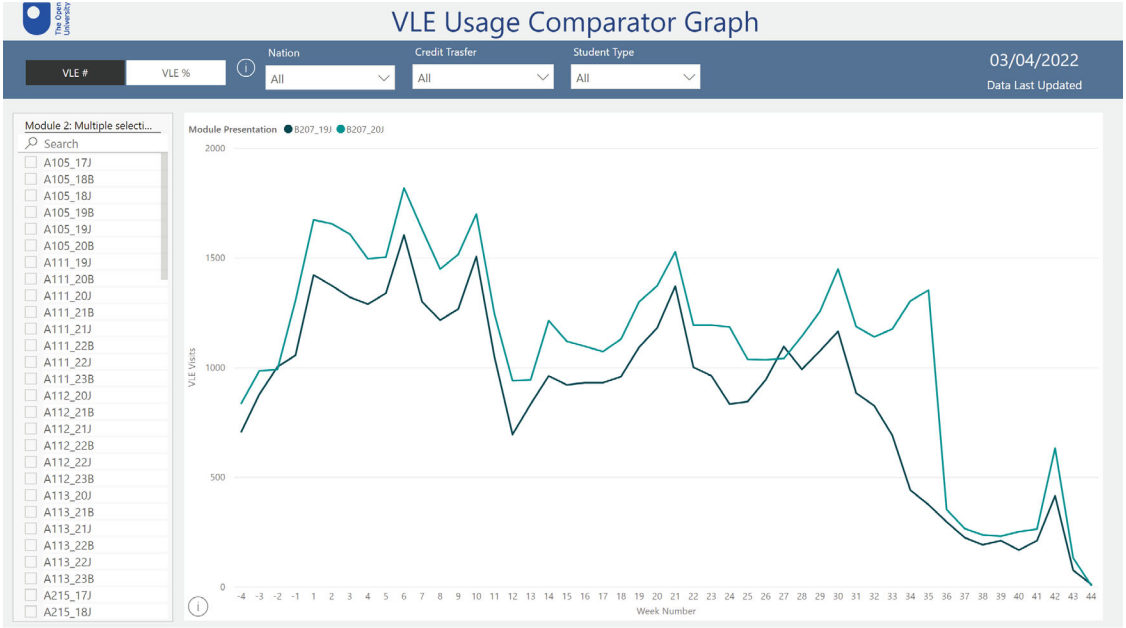

Fig. 6.8 VLE usage comparator: B207 19 J v B207 20 J (*Source* The Open University: Module Performance Dashboard, VLE Comparator B207 19 J, 20 J, accessible at VLE - Power BI)

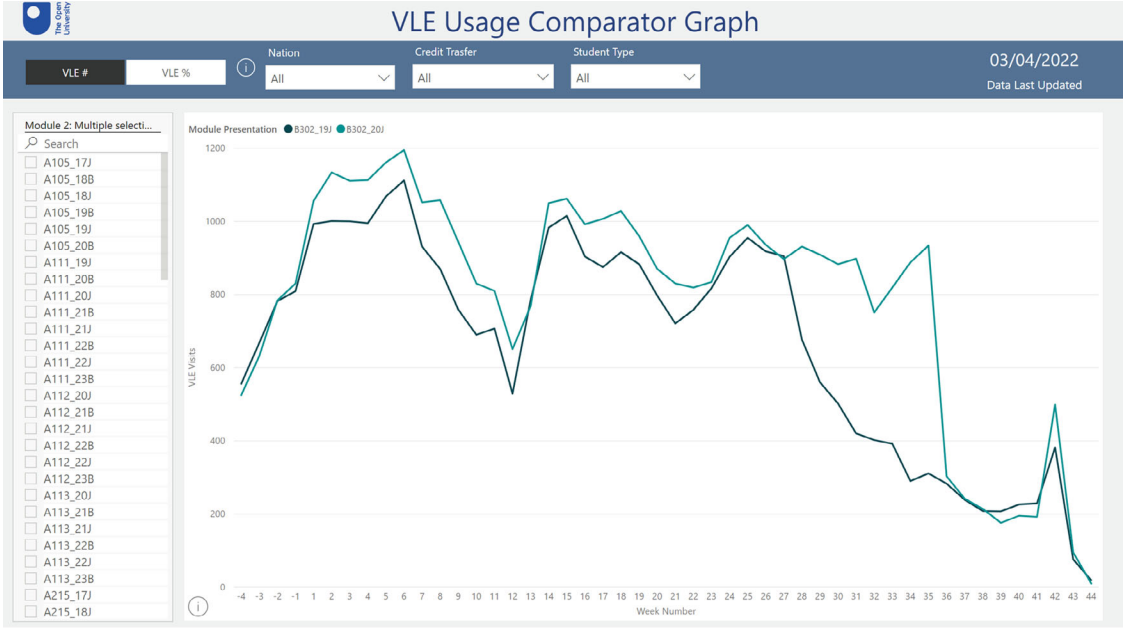

Fig. 6.9 VLE usage comparator: B302 19 J v B302 20 J (*Source* The Open University: Module Performance Dashboard, VLE Comparator B302 19 J, 20 J, accessible at VLE - Power BI)

Table 6.5 B100—VLE tool usage (number of visits)

	20 J	*21B*
Assignment Booklet	47,677	31,222
Tutor group forum	21,620	16,440
Welcome forum and Student café	16,796	12,938
Activity forum 1	13,617	9987
Activity forum 3	11,581	8331
Activity forum 2	11,467	7774
Activity forum 4	11,456	7655
Activity forum 6	9322	5580
Activity forum 5	8308	5262
Activity forum 7	6878	4214
Block 1: Session 1	9067	6647
Block 1: Introduction to B100 and Block 1	7430	5317
Block 1 Introduction PDF of print book	4197	3275
Block 1: Session 2	6901	4935
Block 1: Session 3	5190	3735
Block 1: Session 4	4280	3090
Block 2: Session 5	5133	3647
Module Guide PDF of print book	5103	3981
Block 2: Session 6	4151	2882
Block 2: Introduction to Block 2	4132	2958
Block 3: Session 9	4665	3390
Block 3: Session 10	4098	2980
Block 4: Session 13	4001	2627
….		
Block 6: Session 20	3180	1999
Block 5: Session 18	2938	1828
Block 6: Session 21	2810	1752
Activity 2.5 questionnaire on quantitative skills	2435	1839
Block 6: Introduction to Block 6	2279	1501
….	2215	
Block 7: Session 24	1819	1133
Block 7: Session 23	1815	1149

a qualification's intended learning experience and outcomes, students' motivation and approach to learning should be given as much importance and attention as constructive alignment at module or qualification level. Our future work will therefore concentrate on further investigating the nature, drivers, and consequences of student engagement for the achievement of the ILOs of our qualifications. At the same time, the recent

development of AI-powered models capable of adjusting to learners' individual needs and learning styles (Giannini, 2023) raises new expectations about the possibility to engage students in interactive open-ended discussions which may help develop higher order skills. Understanding how the use of AI-powered models can be integrated in learning design and contribute to the constructive alignment of ILOs, teaching and learning and assessment should also be at the centre of future investigation.

Conclusions and Implications

This study confirmed that skills development has a key role in the learning design of the core modules of the Q91 qualification as well as of the qualification as a whole.

Apart from minor inconsistencies in the definition of individual skills and a need for clearer links between the skills developed as part of the qualification modules and those presented on the qualification website, the study found evidence of a coherent and well-integrated approach to skills development both in the learning design of the qualification's modules and their assessment. Evidence of alignment with Bloom's taxonomy and the need to support students in their progression from lower to higher order thinking skills was also found. Likewise, a review of assessment at module level provided evidence of constructive alignment between ILOs, design of teaching and learning activities, and assessment.

As cognitive skills are instrumental to both understanding and application of conceptual knowledge from module materials, students are expected to develop the ability to evaluate and compare theoretical content, select, and critically analyse information, collect, and use evidence from multiple sources in the construction of arguments. Likewise, students are encouraged to develop professional, practical and study skills in demand in the workplace and needed to succeed in their studies, including problem-solving and critical reflection, digital and non-digital literacy, numeracy, personal development and career planning, awareness of ethical issues and professional standards in business and management, learning from feedback, effective communication, leadership and ability to work effectively with others to achieve joint outcomes. Achievement against skills is then assessed both in continuous and end of module assessment.

However, acquisition and confident application and practice with those skills depend on the purposeful engagement of students with the

online activities which, in each module, have been designed to support the development of those skills. Evidence from the study shows that student engagement with those activities remains limited and uneven across modules and presentations. This suggests that learning design and constructive alignment by themselves may not be sufficient to deliver learning experiences that meet all learning outcomes in full. This finding is especially important considering the increasing popularity and use of generative AI by students. As reliance on tools such as ChatGPT increases, the need to facilitate and support the development of critical analysis and thinking skills through AI-powered models capable of engaging students in interactive open-ended discussions becomes ever more urgent. Whilst it may be a necessary condition for developing learning experiences aimed at the development of skills, learning design is not sufficient to secure the achievement of the intended outcomes. Unless students develop awareness of the importance of skills development for their learning and are ready to engage with the activities aimed at supporting that development attainment of desired learning outcomes may not be possible.

Understanding how to induce greater and more regular student engagement, establishing closer and more direct links between completion of (at least some) VLE activities and student performance in assignment questions requiring the use of skills developed in those activities, finding ways to make engagement with the VLE more compelling for students may help bridge some of the gaps identified in this study and represent useful areas for further investigation.

Further research is therefore needed to understand what hinders student engagement with skills development activities and how to create digital learning systems that facilitate the development of metacognitive learning processes.

Tips

By constructive alignment Biggs intended an outcome-based approach to teaching and assessment whereby the intended outcomes that students are expected to achieve are made clear beforehand and inform the design of teaching and learning activities as well as assessment tasks.

Predicated on constructivist views of learning, it assumes that students build their own knowledge through what they do, and that by understanding what they should be able to do upon completion of their studies and how teaching activities will help them in achieving those outcomes,

students can construct their own knowledge and achieve those intended outcomes through active and purposeful learning experiences.

Discussion Points

This investigation of the learning design of three core modules of the BA (Hons) Business and Management at the Open University showed that, as they progress through the levels of the qualifications, students are expected to meet intended learning outcomes that reflect increasingly higher order thinking skills and learning. It also showed that progression to higher order thinking skills is supported through a comprehensive range of digital activities that students are expected to complete alongside learning module content. This is in line with literature and pedagogies of constructive alignment between learning outcomes, teaching and learning, and assessment. According to these pedagogies, a high level of constructive alignment should be conducive to deep forms of student learning. However, contrary to relevant literature and pedagogies, feedback from tutors and student performance in summative assessment revealed a discrepancy between evidence of constructive alignment in the learning design of the BA (Hons) Business and Management and evidence of deep student learning. The study also analysed the varying levels of student engagement with digital activities, including those aimed at developing higher order thinking skills, revealing that such engagement is both limited and uneven, and clustered around assessment deadlines. This would seem to indicate that constructive alignment in learning design is not a sufficient condition for deep student learning. To that end, student engagement is also required. The study was conducted by analysing aggregate data at module cohort level. We cannot exclude that other confounding variables may be at work at individual student level. Future work should look for additional controls, for example by investigating correlation between engagement and performance at individual student level.

Impact

The findings of this study were presented to the OU's Undergraduate Programme Board of Study and at the OU's Festival of Scholarship organised by the OU's SCiLAB Centre for Pedagogical Research and Innovation in Business and Law in June 2022. The author also presented at the SCiLAB Seminar with Warwick Business School on 23 March 2023.

In 2022, further funding was obtained from SCiLAB to investigate direct correlation between student engagement with skills development activities and performance in assessment.

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CHAPTER 7

Police-Academic Partnerships: Delivering the Police Constable Degree Apprenticeship

Jennifer Norman, Jo Lambert, and Lee Partridge

Policy Review

Professionalisation has been a key development for over five decades within the public sector in the UK. Professionalisation aims to provide an increased accountability and standards within the professions, to demonstrate to the public that public sector institutions are credible, act with integrity, align to ethical standards, and to enhance their public value in the eyes of the electorate. Furthermore, professionalisation acknowledges the increased complexities within public sector roles and, as such, requires practitioners to be equipped with specialised knowledge (Eraut, 1994; Morrell, 2006). The introduction of degree professions for public services has been the cornerstone of a central drive in the fields of education,

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healthcare, and social work over the past 40 years. All sectors are now established degree professions, requiring annual continuing professional development (CPD) and senior leader qualification pathways (Gough & Neary, 2021). Education led the way fifty years ago, with nursing, social work, and paramedic professions undergoing large professionalisation changes in more recent decades. This has included the introduction of both a higher education degree learning requirement, codes of practice, behaviours, and values as well as professional registration for nurses and paramedics (Bresnen, 2013). On a day-to-day basis, these professional groups interact and work collaboratively to mitigate and solve complex problems within society, often led by the police. However, the police professionalisation agenda has been slow to reform, creating an imbalance of training, education, and qualification levels across the sectors. Until recently, the educational investment for police officers has been routinely absent, despite their challenging role in society (Winsor Review, 2012).

The move to integrate degree education into policing acknowledges the lack of parity with peers in other professions and will provide the individual personal recognition the role of policing provides in this complex, challenging, and volatile social landscape. Police training is an area that has been subject to continuous reform since the inception of the police in England and Wales (Fielding, 1988). The renewed efforts to standardise and provide training that meets the needs of both profession and public have been described as an unfulfilled promise (Fielding, 2018). Police culture, socialisation, and a lack of training standards across the country have often been described as common blockers to the execution of effective training (Charman, 2018, Fielding, 2018). Training has been perceived as inadequate and transactional requiring the need to integrate formal learning standards in keeping with university education (Winsor, 2012; Wood & Tong, 2009).

Since 2012, there have been renewed attempts to professionalise the police in England and Wales (Holdaway, 2017). The Neyroud Review (2011) offers the most recent developments in professionalisation instigating significant changes and challenges to policing to raise policing standards nationally. In 2012, the established professional body, the College of Policing (CoP), began workstreams to drive the consistent delivery of professional standards. These workstreams involved the development of a national Police Code of Ethics (CoP, 2014), a full review of police leadership (CoP, 2015), embedding evidence-based policing (CoP, n.d.), and mandating that police officers' recruits would undertake a degree-level

six qualification (either undertaken prior to joining (Policing Professional Degree, PPD), or on entry (Police Constable Degree Apprenticeship, PCDA, Degree Holder Entry Programme, DHEP).[1] Each of these entry programmes formed the Police Education Qualification Framework (PEQF) (CoP, 2016) and are underpinned by the learning requirements set out by the CoP's National Police Curriculum (NPC).

The PEQF would become major reform to the police training and education landscape, marked by a shift from training to education, the attainment of a formal degree-level qualification, and the requirement for all forces to work with Higher Education Institutes (HEI) to deliver the mandated degree-level learning. The commitment and investment involved in designing and implementing the new education reform has been significant for all stakeholders. There have been continuing challenges surrounding the reform in terms of the timings and readiness of organisations (Williams, 2020), cultural buy-in for change, and a shift in pedagogic approaches to meet the collaborative nature of the curriculum. The early implementation of the reform was initiated in 2018, with a small number of forces/HEIs delivering the degree programmes as 'early adopters.' The majority of partnerships were implemented in 2020/2021 and began delivery at the time of the COVID-19 pandemic, with the added complexity of increased recruitment targets through the Policing Uplift Programme. This programme, whilst welcomed by the police, placed targets on police organisations to achieve the extra recruitment of 20,000 officers between 2020 and 2023. In tandem with these strains, the political rhetoric changed in relation to the newly implemented education reform. In November 2022, the Home Secretary at the time, Suella Braverman, directed the CoP to develop a non-accredited pathway into policing pitched at level five learning.[2] This political discourse has created a scepticism in degree-level education and, anecdotally, undermined the value of degree learning in policing, for police-academic partnerships and the new recruits studying the programmes. Therefore, the police education reform remains in flux, politically driven, and challenging for all stakeholders involved.

[1] An additional pathway is currently being established as a non-degree route, but at the time of writing the plans are unclear.

[2] Level five learning is achieved at the end of Year 2 of a standard undergraduate degree, or equivalent to a foundation degree/HND, for example.

This chapter presents the findings from a case study developed by The Open University UK Business School and a collaboration with a police force, which explored the delivery of formal education to student police officer recruits. The insights discussed outlines the complexities of collaboration, along with the ways in which effective partnerships facilitate the learning design to enhance and support police practitioners. The background set out in this chapter describes the broader context of professionalisation and police training to demonstrate this radical move for collaborative learning for new recruits. In the first section of our chapter, we set out a brief history of police-academic partnerships. These are useful contexts to consider the potentially diametrically opposed requirements to mobilise learning collaborative between HEI providers and the profession and the use of learning as a cultural change mechanism. We argue both viewpoints can be achieved with a trusted, transparent, and honest relationship.

Police-Academic Partnerships

Whilst it is common for policing and academia to work together (Engel & Henderson, 2013), police-academic partnerships have often been described as fractious (Brown, 1996). Policing research was typically done *on the police* rather than *with the police* with a focus on wrongdoing, questioning the accountability of policing, contributing to these tempered relationships (Brown, 1996). However, more recently, with the renewed emphasis on police professionalisation from the CoP, it is *implicit* that the HEI providers and policing work together to achieve evidence-based policing, and *explicit* that the academic institutions and policing collaborate to implement the degree pathways into policing. The movement towards evidence-based policing (EBP) allows for research to be undertaken, to inform and challenge the policies, practices, and decision-making within policing. Police-academic partnerships in this context, are slightly different to the partnership requirements to design and deliver a formal qualification collaboratively. Whilst the EBP agenda is aimed at developing practitioners' research skills and is facilitated through the NPC, the development and implementation of formal education reform requires a new understanding of the police-academic partnerships. Contractual agreements, shared outcomes, and responsibilities must form the basis of these relationships. This is new territory for policing and HEIs in the implementation of education reform.

Police-academic partnerships are evolving, but they remain fragile and reliant on broader complexities such as cultural challenges and the requirement for long-term investment for sustainability (Bacon et al., 2021). Funding and sustainability are driven by the political rhetoric underpinning the professions, both externally from government agencies and internally from structurally and culturally diametrically opposed organisations. This remains a challenge for all partners when policy decisions can change significantly and suddenly, making the role of research and education vulnerable for the HEI, and for policing organisations not prioritising the development of their employees from the outset.

> While we recognise that police–academic partnerships have certainly come a long way and have the capacity to make important contributions to police work, we argue that they remain "fragile" alliances, beset with fractious occupational cultures, unreliable funding streams and unsustainable inter-institutional relationships. We also reason that the structures underpinning this "fragility" do not represent problems to be overcome, for they help to protect the integrity of the two professions. (Bacon et al., 2021, p. 93)

As HEIs approach the collaborative relationship with their contracted policing organisations, there are several key implications to consider when creating learning design. This must be targeted towards the professional audience and requires a collaborative approach that captures the following key considerations:

1. **Understanding the motivations of police recruits** to join the police and to be a police constable. The underpinning educational requirement is not the priority consideration: compare this to a standard student choosing an undergraduate degree pathway, there are notable differences in motivation and commitment. Much literature on adult learning situates an individual's ability to choose their learning, that they are self-directed and motivated by internal personal factors and know the value of the knowledge (Knowles, 1969). The pedagogic approaches utilised through the learning design must foster an ethos learning and self-development to support learners as a police professional.
2. **Developing authentic assessments and supportive learning environments** are fundamental components for HEI to integrate into the curriculum. The authentic learning involves specialist operational

knowledge, academic (research-led and teaching-led) expertise and an in-depth understanding of the work-based context, interactions and challenges posed in the complex operating environment of policing professionals (Hough & Stanko, 2019).

3. **Facilitating reflective practitioners** is a core aspect of learning design aimed at embedding the reform from a transactional training-based approach to transformational education-based profession (also see Chapter 11 this volume).
4. **Ensuring the infrastructure supports academic design and delivery** and the contractual requirements for student progress, pastoral support, and that specialist teams appropriately deploy interventions. Capturing this data can be utilised to support future learning design and continually improve the student experience.

The pertinent points raised from the literature above formulated the requirement to ensure we progressed as a police-academic partnership in the most productive way based on evidence. An initial scholarship project was established to provide insight in exploring stakeholder perceptions and learning for continuous improvement as the partnership evolved.

Methodology

Background

Since formal education routes were introduced by the College of Policing, The Open University's (OU) Department for Policing have been working in collaboration with their contracted police force to design and deliver the PCDA for new recruits into the force. The first apprentices joined the PCDA programme in July 2020, with three further cohorts in 2020/21. Given the evolving nature of the PCDA, this study was instigated in 2021 to pause and reflect on the delivery of education to apprentices by exploring the partnership and the experiences of apprentices studying the PCDA. This study provided learning for the partnership for future developments of the programme and to reflect on the learning experiences of OU apprentices and the key stakeholders involved in the partnership. The work also provided nuances of the broader policing narrative in relation to organisational readiness delivery of education reform in policing, and cultural resistance to formal education for new recruits. The aims of the research are as follows:

1. To explore the perceptions from key partners from the OU policing team and the police staff involved in the PCDA collaboration to identify good practice and future learning around the partnership.
2. To develop an understanding of the learning experiences from PCDA apprentices at the police force.

Partnership Semi-structured Interviews

The first aim of this study was to glean an evidence base on the partnership during the point at which fieldwork from the key stakeholders was carried out with both organisations. Whilst the partnership was in its infancy, both organisations were committed to understanding good practice and areas that could be improved as the partnership evolved. Nine semi structured interviews (four from the HEI, five from the police organisation) were undertaken with the key stakeholders from the partnership. All participants performed strategic roles in the collaboration and were interviewed by the Teaching Director responsible for the development and delivery of the programmes, the Business Development Manager who had oversight of the contract, the Apprenticeship Programme Delivery Manager, and the former Head of Department for Policing. The police organisation interviews were undertaken with the lead of the Learning and Development (L&D) team, the Inspector of the Professional Development Unit (PDU), the L&D Trainers, and PDU Sergeants.

The research team identified all key partners. All were invited to interview, and all participated in the study. The interview questions were devised using the literature based on organisational readiness and partnership working. In particular, the themes that informed the interviews focused on police partnerships with HEIs (Brown et al., 1989), organisational cultures within each organisation to facilitate a learning environment (Hough & Stanko, 2019), organisational processes to embed the initial learning for recruits (Hough & Stanko, 2019; Williams, 2020).

Interviews typically lasted an hour and were recorded for transcription. Braun and Clarke's (2006) thematic analytical approach was applied to the data. This consisted of an independent analyst from outside the discipline (for objectivity) undertaking a process of data familiarisation, coding the data to identify the themes which were reviewed and defined. Following this the themes were analysed, locating key quotes from the data. The findings were presented in an operational report which was disseminated

to both organisations. Relevant learning design themes are considered within this chapter and are presented below.

Student Surveys

In order to achieve the second aim of this research, surveys were disseminated to all 85 apprentices live on the PCDA programme in June 2021.This included four cohorts from the academic year 2020–2021, undertaking their first year of study. There was a total of 46 from Cohort 1 (n = 31) and Cohort 2 (n = 15) and a total of 39 from Cohort 3 (n = 20) and Cohort 4 (n = 19). It should be noted that none of the apprentices surveyed had completed Year 1 and one cohort (Cohort 1) had achieved Independent Patrol Status at the time of survey. Table 7.1 shows the breakdown of the 34 responses received by cohort:

- 13 from apprentices who had progressed to tutored patrol phase (from Cohort 1 and Cohort 2);
- 21 from apprentices still in initial learning phase (from Cohort 3 and Cohort 4).

The survey consisted of 24 questions and mainly utilised attitudinal questions. These questions covered a range of topics with a focus on:

- gleaning apprentices' views on their motivations for joining the force;
- their experiences of the blended learning offer (Hough & Stanko, 2019) at the OU;
- the perceived relevance of their learning in the context of their role (Norman & Fleming, 2022; Norman & Williams, 2017).
- their perceptions about how learning is supported (Brown et al., 1989; Hough & Stanko, 2019; Williams, 2020) both by the OU and in their work setting.

Table 7.1 Student survey response rates by cohort

Cohort	*Responses*	*Response rate*
Cohort 1 and 2	13	28%
Cohort 3 and 4	21	54%
Overall	34	40%

It is important to note that this project is based on these early experiences, and the partnership since has continued to evolve and thrive in support of the programmes offered. As this is a small sample size, the data was analysed using Fishers Exact test value (Fisher, 1958) to test if there were non-random associations between two categorical variables.

Ethics Statement

This study was performed in line with the principles of the Declaration of Helsinki. Approval was granted by the Ethics Committee of University B (05/05/2021/No 2021–1787). In addition, for human participants, authors are required to include a statement that informed consent (to participate and/or to publish) was obtained from individual participants or parents/guardians if the participant is minor or incapable.

Findings and Discussion

The findings of this research presented four themes that relate to delivering a collaborative curriculum in a professional context. The impact for learning design, authentic assessment, and student support undertaken by the partnership needs to be considered holistically for both organisations. The authors highlight that for productive and effective learning delivery, the following areas require specific attention:

- the establishment of the initial partnership,
- the 'organisational readiness' aspects in preparing for the delivery of the PCDA,
- the delivery of the first year of the PCDA,
- a strong partnership—growth and recognising potential, a culture of continuous improvement.

Establishing the Partnership

As the partnership became established between the two organisations, a clear sense of shared vision and values emerged in defining the ownership and commitment to design and delivery the PCDA. There was a shared responsibility and culture of interdependence to deliver new education reform in a conceptual and contractual sense. The initial engagement aided a thorough understanding of potential deliverables and how PCDA

requirements could be operationalised, working to the strengths of each organisation. Interviews revealed the OU had been the preferred partner for the policing organisation, given the flexible but tailored learning offer that is facilitated by the OU model in supporting students (particularly from non-academic backgrounds). The skills and expertise offered by the OU, in terms of enabling flexible learning was recognised, as well as the expertise offered from the team in the context of policing. From the OU perspective, our police partner was perceived to be a complementary partner for the OU, on several levels:

- **Mutual values and a strong ethos committed to making the PEQF work collectively:** The discussions that took place in the pre-contract meetings established that the values of the policing partner correlated well with those of the OU. They were viewed as a crucial aspect in ensuring the aspirations of the partnership would work for both organisations and to establish the ethos of working that could be taken forward. Examples of these values were the open access to all, accessibility and inclusion, a commitment to drive change and challenge appropriately.
- **A vision to facilitate flexible and supportive learning to students:** Early conversations between the partners identified the requirement for 'off the job' learning to enhance the integration of learning and working. The flexibility of the OU model would be beneficial to apprentices who were working alongside their studies. Operationally, this meant that protected learning time[3] (PLT) was easily managed and became an embedded feature within the apprentice's shift pattern. Furthermore, the number of police abstractions[4] for study days were more manageable for the police force, as apprentices were not required to attend university.
- **The OU model can be adapted to meet the policing partner's needs based on the size and geography of the force:** The geographical size of the partner force meant that a quality supported

[3] Protected learning time is a mandated requirement for apprenticeships so ensure apprentices receive a proportion of their working time allocated to off the job learning.

[4] Police abstractions: the number of police officer days where they are not available for operational duties, for example required to cover a range of other operations, including training.

digital learning provider may be more beneficial to the implementation of such an impactful education agenda. Due to the fact that consistency of delivery via the virtual learning environment was not dependent on individual lecturers, synchronous communication techniques or the requirement for student officers to be at a set location at a set time. The ability of the OU to deliver learning to multiple devices, either online or via offline download, opened up different engagement opportunities for the partner force to deliver the initial learning phase.

- **Effective, open, and honest communication:** This was established from the outset, alongside a commitment to collaborative working which was an ongoing process from the contract award through to contract signature, and onto the College of Policing Quality Standards Assurance (QSA) processes. Quality communication was crucial to ensure the programme met the needs of both organisations and that it was practical for delivery in the authentic, work-based context of policing practitioners. The regular meetings and contact between relevant people in the OU and the partner force were described as fundamental.
- **Engaging with the right people to enable the operational practicalities of the partnership:** Participants also described the practicalities of setting up the partnership, particularly getting the right people involved from both organisations, to ensure the success of the new programme. Combined with the strategic level buy-in, the operational teams co-constructed the student journey, identifying key interaction points and therefore the support, data and infrastructure needed to underpin student progress, pastoral support, and successful delivery of the learning. This enabled the achievement of collective understanding, shared terminology, and an aligned vision (highlighted above) as the foundation to the partnership.

The OU drove a lot of the decision-making as they were viewed as the experts with the learning sphere, however, the partner force's contribution and expertise were viewed as vital. There was a sense from both the OU and the partner force participants that they had developed an open and honest relationship which provided an important foundation for the partnership. Transparent conversations facilitated effective problem-solving approaches to provide answers and solutions to complex organisational issues that both partners experienced at both a strategic and

operational level. Given the new and evolving relationship, it was a risk and a challenge that required trust, empathy, and vulnerability. Key characteristics important to setting up the partnership were effective, open, and honest communication, as well as consulting the right people to realise and enable the practical aspects of the set up. During the learning design process, the L&D trainers from the partner force had access to all content and assessment developed on the OU's virtual learning environment. The quality and accuracy of the OU content and authentic nature of the assessments gave confidence to the policing partner that the OU academics were truly listening to their requirements. When suggestions and improvements from the police partner were acted on, this further underpinned the trust and honesty of the relationship.

Organisational Readiness

Recognising the relationships between the people involved in change, as well as the processes and structures to facilitate change are central to the ideas behind organisational readiness (Williams, 2020). For each organisation, the 'readiness' was different but equally challenging as each other in the context of their own organisations.

For the OU, the preparation work required was around.

- having strategic investment in developing a policing team that was key to recruiting an interdisciplinary team of policing experts to develop the curriculum content,
- designing and producing the learning materials,
- ensuring the learning design infrastructure was in place with the capability of developing a digital and active pedagogy.

Even as a trusted and experienced supplier of distance, digital supported education, the degree of integration with the student's workplace, their experiences, and application of learning into practice was key to the success of each individual and the policing partner as a force. The importance of recruiting academics that can empathise and create active learning that students can engage with and the design of authentic assessment whilst working in an environment of ambiguity, only became apparent over time. As with launching all new qualifications, there was a degree of uncertainty as to how the learning would be received. There was a conscious effort to ensure maximum student engagement with

the assignments and a focus on transformative learning to bring reflection on practice (also see Chapter 11 this volume). Given the context of the apprenticeship, there was no room for the partnership to fail once apprentices were on programme.

From a policing perspective, organisational readiness included:

- having senior level buy-in was deemed crucial for the establishment of PDU[5]
- designing the PDU with the resources available to achieve its purpose
- raising awareness of PEQF within force (challenging cultural expectations)
- challenging existing practices within initial training and the integration of 'academic' material and assessment practices.

The partner force was culturally receptive to the PEQF evidenced by the senior level buy-in, the willingness to 'try something new', and create the PDU in ways that would work for the students, the OU, and the contractual requirements, as this participant states:

> We've been very lucky working with [police partner] that they have been very culturally open to implementing the PEQF. (OU4)

It was clear from the participants' responses that police partner had carefully considered its structure and resource requirements to create a model that sought to ensure a smooth transition to the PCDA. Students would be inducted onto the programme and supported throughout by Student Development Officers (SDOs).[6]

A key feature of all induction and professional socialisation into policing rests with the SDOs (see footnote 6). SDOs are key in being able to support students to apply their academic learning in a practice

[5] PDU: Professional Development Unit.

[6] There are different models that police forces use when inducting student officers into the organisation. Some forces use a Professional Development Unit (PDU) where apprentices are assigned a Tutor Constable (TC) and learn how to do the job through attending incidents with them. In other forces, student officers are part of the response team (assigned to a TC) and are therefore considered part of the force's resource. In many other forces, there is some mixture of these two approaches.

environment. Various research studies have highlighted problems with how SDOs are recruited in police forces in England and Wales (Chandler, 2021; HMIC, 2002). The literature indicates that common issues in supporting new recruits into policing relate to a lack of tutors, a lack of formal process in recruitment, inexperienced officers becoming tutors, not enough time to complete reviews with tutees, and tutors and apprentices being counted in response numbers (Chandler, 2021; Cockcroft et al., 2023). In seeking to address some of these issues, the police partner decided to identify minimum standards for their SDOs and recognised the importance of initial training and Continuing Professional Development (CPD) for them. As the support provided by the SDOs was integral to the success of the individual students and the partnership more broadly, it was a natural progression for them to work with the OU to offer coaching support through the delivery of a learning module. This additional development opportunity provided a potential incentive for the role. Moreover, it was suggested that SDOs were working to a defined pedagogical approach to tutorship, something that has been identified as lacking in previous research (Bowles et al., 2023; Tyler & Mckenzie, 2014).

The Benefits and Challenges of the PDU Model

Participants described several advantages of the PDU model. These focused around the ability to support and nurture students and allow them space to reflect on their practice and development. The benefits summarised from the resultant data are as follows:

- students were protected in the PDU and could therefore be nurtured;
- a learning environment tailored to the individual needs of students with time for reflective practice;
- a positive environment led to a strong morale and buy-in of the PEQF on the ground;
- support structures in place in the PDU and at the OU complimented each other, to support all student needs.

The experience of the student was at the heart of the model. The established development programme delivered through the support from SDOs meant that students were mentored and coached, and time was

protected to enable reflective practice. The ethos of reflective practice was also mirrored in the PDU model facilitating a learning environment that could be tailored to the individual needs of students, allowing sufficient time to debrief and reflect on their learning and practice. The support structures within the PDU and the provision of Associate Lecturers (ALs) and Practice Tutors (PTs) were described to compliment the learning journey and were crucial in supporting students who may be struggling.

There were some challenges with setting up and delivering the PDU model. The corporate communication to promote and advertise SDO recruitment was impacted by COVID-19 resulting in a lack of understanding of the PDU. Some of the participants explained that the considerable investment in the PDU had caused tension with other areas of the force due to the impact on resources. Additionally, period of exploration was required to understand who was best to support a student at what point: sometimes resulting in over or under support until clear roles and responsibilities were defined and informed by actual practice in delivering the PCDA.

Delivering the PCDA

From establishing the partnership, the provision of a supportive learning environment for students was a priority for both organisations. On the delivery of the programme, this theme continued and was central to the evolution of the delivery structures in place to enable student support. Protected learning time was a core feature of providing students the space to reflect and consider their learning in practice.

Support was designed to be all-encompassing and complimentary from both organisations. Students receive their learning digitally, through the virtual learning environment developed by the OU. The active pedagogic approaches utilised challenges and transforms the individuals' learning into practice:

a. The PDU is structured across three satellite sites in the county which ensures that there is accessibility to support following the achievement of Independent Patrol Status.[7] This enables a continuing commitment to mentoring and coaching between the student

[7] Independent Patrol Status refers to a level of competency achieved by new officers to be able to respond to incidents independently. An officer is still in probation until they reach Full Operational Competence.

and their tutor-constable to the end of the qualification. The interviews with both the partner force and the OU demonstrated that the flexibility of the PDU enabled students to be supported centrally while maintaining the operational requirements of the force.

b. Provision from the OU runs alongside the PDU model with practice tutors that provide the work-based application of learning into practice, reflective thinking, and personal-professional development, with expertise in the policing profession. Academic lecturers support the theoretical concepts that underpin policing, society and the local problem solving for the communities they serve, alongside skills development for research and higher education.
c. The accessibility of the curriculum via the virtual learning environment meant that all the content was available to the police trainers which enabled them to focus their training provision on bringing knowledge to life.

The blended approach allows for students to manage their [digital] learning flexibly and the complimentary nature of the one-to-one support from tutors, lecturers, and tutor-constables allows for support and development to be tailored as the student moves through their learning and transforms their practice. With both partners involved in the development ofthe students at all stages of the programme, student concerns were readily identifiable.

From the student survey data, it was clear to see the levels of uncertainty rising within the cohorts as they approached the transition from classroom delivery to operational duties. More than 75% reported they were confident that they could perform the role of police constable in the early phases of training, compared to only 48% as this key milestone approached. While the partnership thought the student support was well articulated, it was clear from the student responses that this was not the case. There was an overwhelming amount of information and the potential routes for support required simplification. The governance model and reporting mechanism that underpinned the student experience had indicated this was an issue. Anecdotally, the partnership was aware students believed they could 'play mum off against dad', which was confirmed through the survey and action was implemented. In other words, students had the opportunity to consider the different programme requirements from each organisation to work them to their advantage or to create confusion between the organisations. Awareness of

this eventuality between the partners was crucial and communication was paramount.

The support mechanisms in place by both partners are crucial to identify those students who may require extra support at an early stage. The content, from an academic perspective, can be challenging. The central focus of the learning design is to deliver transformational learning of theory into practice: This means, in effect, the provision of quality learning that extends from instructions of what police officers are required to do, to providing the theory behind why. This key aspect contributes to apprentices' feeling informed around contemporary issues in policing and decision-making.

Observations were made around the quality of the new syllabus in comparison to previous police training, as this participant reports:

> In the old IPLDP [Initial Police Learning Development Programme] there were elements of that syllabus I understand were up to 14 years old, where now the new syllabus looks at digital crime. It looks at criminology, why are people committing crime in the first place, it's taken me 25 years to understand to an extent, albeit a low-level extent why people commit crime, that's just born out of experience. Totally understand that the syllabus is actually accelerating that learning process. So, their starting position will be greater than mine was 25 years ago. So, I think the theory's great. (PO4)

Importance of Protected Learning

One of the key benefits of the PDU described by the participants concerned the commitment to protected learning. The partner force took the decision to retain students in the PDU to ensure the student had the maximum support in completing their Apprenticeship, over and above compliance requirements.

Protected learning time also demonstrates to the student that the partner force values the programme, the learning and knowledge acquired through the programme and commitment to the wider educational reform. One of the most common benefits discussed in interviews concerned the nature and quality of the new recruits.

> 'There are various different cultures within the police, but I think what we're starting to see now in the feedback is the good quality standard of some of the recruits that are coming through. Communication skills are

absolutely excellent, the way they're able to, from an English language point of view, and the paperwork and stuff, really good.' (PO2)

The Challenges of Delivering the PCDA

Whilst there have been some clear benefits to the initial delivery of the PCDA, inevitably there were challenges, particularly given the circumstances of going live during COVID-19. However, both organisations overcame this challenge and were committed to identifying and addressing the issues as they emerged. These issues largely related to organisational processes, impacting on students and others on staff involved in the delivery of the programme. The challenges identified in the interviews are outlined below:

- **Getting the technology right—integrating Onefile™:** Initially, there were problems with the electronic portfolio system OneFile™ which, at the time, created significant operational issues for the partner force and students. This system allows students to capture evidence for their Operational Competence Portfolio. Once the technical issues were identified as a problem the OU, 'worked tirelessly under very difficult circumstances*' (PO5)* to resolve the situation. Whilst, at the time of the interviews, the problems had been resolved, both organisations recognised the significant impact this could have had on the students and the programme had it not been remedied comprehensively and quickly.
- **Retaining students on the programme:** Retention of students on the programme was a concern relayed by both partners. As previously mentioned, the requirements set by the College of Policing's National Police Curriculum is all encompassing, academically and practically. Whilst there was recognition from partners that some students have thrived and enjoyed the learning, some have met challenges, often with the academic content of the programme. This raises the importance of expectation management through the induction and the provision of support throughout the programme. Partners expressed the importance of recognising a healthy work-life balance for students. The challenges of meeting the PCDA requirements can hinder, given the volume of work, the ability for students

to maintain an overall balance at key times. To remedy this, a performance management approach was set up to capture and monitor student progress. The enhanced focus on individual monitoring and the protected learning environment, combined with the unprecedented levels of student support enabled a mechanism to spotlight academic and/or operational underperformance. From an operational perspective, underperformance (which previously would have been left un-checked) was managed robustly, which sometimes lead to retention concerns.

- **Student numbers and recruiting onto the PCDA**: Issues were also raised in relation to recruiting onto the PCDA. From delivery of the programme, it was clear to partners that there were concerns that certain groups of people may be discouraged to join the police. These are useful observations to consider in recruitment processes going forward. The survey indicated that there were mixed motivations for joining the PCDA, some students were committed to achieving a degree-level qualification and valued the opportunity to do so. A third of students surveyed, indicated the educational requirements of the programme were a de-motivator and that their sole intention was to become a police constable. The 'chance to help people, communities, and society' and 'the excitement of the work', had been key drivers to join the police, as one would expect. Whilst others were solely focused on becoming a police constable and saw the learning as a necessary evil to their end goal. This has not been helped by the political landscape that has since undermined the value of a degree.

Despite the inevitable challenges faced by both partners in the initial delivery of the PCDA, interviews with both organisations, demonstrated a commitment to an ethos of problem-solving together. The close working relationship enabled the recognition of challenges and the ability to intervene and continuously evolve to address the issues around technology, managing organisational processes remotely, reflect and adapt inductions for students to manage their expectations and to maximise retention.

Future Considerations and Conclusions

Evidence supporting the notion of a quality partnership, was articulated through participant interviews. The development of authentic and transformational learning provision was perceived to strengthen the learning climate established in the partner force. The following areas were raised as priorities as collaborative work to continue to shift the learning culture within the force for the future:

- **Raising awareness in force of the police education reform agenda:** Whilst the study illustrated buy-in to support the delivery of the PCDA, there were continuous reminders of the broader resistance presented to introduce the police degree reform. The partnership recognised this challenge and implemented sessions delivered by the OU to Sergeants and Inspectors in response and neighbourhood policing teams, to raise awareness of the reform and the practicalities for students to undertake a degree full time, whilst working full time. Part of this work involved the opportunities presented with utilising the findings from the evidence-based research projects given their applicability to local practice.
- **Extend the learning provision** to Police Community Support Officers and Special Constables and the development of the Degree Holder Entry Programme (DHEP). Within this sphere, the constant evolution of all learning needs to future-proof both the curriculum and students to challenges technology: specifically, artificial intelligence (AI) and plagiarism tools (see Chapter 2, this volume, for further discussion on the broader implications). The police-academic partnership brings a multidimensional response to AI, for example, within cybercrime; the creative use within assessment to use AI positively and, cost reduction for intelligent student support with academic skills (such as intervention with statistical processing), all within the bounds of the Code of Ethics.
- **Upskill existing officers and staff—degrees and continuing professional development learning for serving staff:** A core aspect of development is to address the population of serving police officers and staff that have not been included in the education reform to recognise their professional experience. Recognition of Prior Learning (RPL) can be used as a mechanism to achieve parity yet is underdeveloped in policing-academic partnerships.

- **Managing the (r)evolving staffing of the programmes:** During the initial rollout, a substantial process was undertaken by the partner force to recruit and develop the tutor constables supporting the students. The focus of the development programme used intent-based leadership methodologies, where students are encouraged and supported to take accountability of the learning in their practice. Input from the OU on curriculum, coaching, and mentoring facilitate this ethos. Through the OU's Centre for Police Research and Learning (CPRL), a research project commissioned through the Policing Uplift Programme provided national insights into best practice for this pivotal role, and the importance of their professional development. This has informed future opportunities to ensure the value of education is maximised within the partner force.
- **Innovative practice to maximise police-academic partnership with a view to integrating research into learning.** Working in collaboration with the OU Law School, research into technology-enhanced learning has created a synergistic opportunity for practical skills development within a virtual courtroom space. The surveyed students were invited to participate in a pilot study of advocacy and application using virtual reality and an applied case study. The underpinning premise of the learning was adapted from the Law School setting to the police context, transforming the untested knowledge of giving evidence in court to a practised skill.

Tips When Establishing Police-Academic Partnerships to Deliver Learning

This small study has provided some learning points and useful tips for police-academic partnerships when delivering a collaborative learning model:

- Foster mutual values and a strong ethos committed to collective responsibility in the learning design and delivery. This should be navigated by effective, open, honest, and quality communication, an ongoing process.
- Ensure there is commitment from both organisations to drive change, challenge appropriately and to provide an infrastructure so that systems can be embedded to support the learning design and

delivery to students. Strategic and operational buy-in is crucial from both organisations.

- Facilitate flexible and supportive learning to students to maximise the students to succeed to their potential in terms of 'off the job' learning, integrating learning into practice, consider the workloads of students providing a support infrastructure that is force-led (for operational requirements) and HEI-led (for learning requirements).
- Maximise innovation and learning design to meet the policing partner's needs based on the size and geography of the force to provide supported digital learning, impactful education (both asynchronous and synchronous) to co-deliver the learning.
- Input from both organisations on the learning design and delivery of authentic, work-based contexts of policing practitioners.
- Embed support mechanisms surrounding the student journey should be co-constructed by the operational teams, identifying key interaction points to underpin student progress, pastoral support, and successful delivery of the learning.
- Ensure the students are key partners within the collaboration. Taking time to evaluate their experiences and hear their voices is a crucial aspect of improving the programme design and delivery for the future.

Discussion Points

This chapter has discussed the successful implementation of a new police-academic partnership to achieve the CoP's educational reform agenda, showcasing a case study in action. Factors contributing to its success are collective responsibility, mutual trust and respect, transparency, and commitment to the student experience. Significant investment continues from both organisations to ensure that the learning designed and delivered to the student have academic rigour, operational transferability, and impact into force learning.

The aims of this study have sought the views of the key partners involved in designing and delivering the PCDA. The study has identified the core characteristics of the police-HEI partnership that have worked to successfully deliver the PCDA. The mutual agreement from the outset to co-design, co-delivery, and to collective responsibility for the PCDA meant that time and effort could fortuitously be focused other aspects

when developing the model. Central to the learning design was ensuring the infrastructure supported both academic design and delivery as well as force-led training and delivery. Both elements required a support mechanism within the infrastructure to support students pastorally, academically and to assist them in translating the learning to practice. Enabling reflective practitioners is a central component of the PCDA which places the importance of developing authentic curriculum, assessments, and supportive learning environments. The pedagogic approaches utilised through the learning design fostered an ethos self-development to support learners as a police professionals. The innovative and interactive methods used in the curriculum to translate learning to practice using real-life examples helped situate the learning for students. Listening to the voices of the students as a key partner is crucial both for the development of the PCDA, but also in realising the benefits and limitations of the new educational reform as it becomes embedded.

As the political rhetoric continues to develop, arguably is moving the educational reform backwards to the old model of police training, the impact is felt across all stakeholders: the students on degree-level programmes, the police-academic partnerships remain fragile and at risk of being dismantled threatening the strategic investment made by both forces and HEIs across England and Wales. At an individual level, there is the potential that new recruits into policing could receive learning designed for different outcomes: one for formal education, carefully crafted and adapted to meet practice; and the other that takes training to the new recruit but does not develop this in ways to encourage critical thinking, reflection, and analysis of decision-making.

Whatever the future of policing education reform, it is paramount the learning supports and maintains consistent standards across all pathways. Ultimately the quicksand of political rhetoric is undermining the learning that has been designed to support the profession, reinforces the resistance to degrees and those individuals who based their careers on entering a degree-level profession.

Glossary

AI: Artificial Intelligence
AL: Associate Lecturers
CoP: College of Policing

CPD: Continuing Professional Development
CPRL: Centre for Police Research and Learning
DHEP: Degree Holder Entry Programme
EBP: Evidence-Based Policing
FOC: Full Operational Competence
HEI: Higher Education Institutes
IPLDP: Initial Police Learning Development Programme
L&D: Learning and Development
IPS: Independent Patrol Status
PCDA: Police Constable Degree Apprenticeship
PEQF: Police Education Qualification Framework
PDU: Professional Development Unit
PLT: Protected Learning Time
PPD: Policing Professional Degree
PT: Practice Tutors
NPC: National Police Curriculum
OU: The Open University
QSA: Quality Standards Assurance
SDO: Student Development Officers
TC: Tutor Constables
VLE: Virtual Learning Environment
VR: Virtual Reality

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CHAPTER 8

How to Develop a Sense of Belonging in Online Distance Learning?

Carol Edwards and Liz Hardie

Introduction

Digital learning offers many advantages to both students and educational providers; for students, the flexible nature reduces barriers and allows them to work at their own pace. For institutions, digital learning allows students to attend more learning events (with no limitations on class sizes), improves communication channels with students and offers flexibility when facilitating student support events (Snelling, 2023). However digital learning can also be isolating and lonely for students, which can exacerbate wellbeing and mental health concerns (Jones & Strevens, 2022; Rush, 2018). In a digital learning environment contact is often via the formal teaching setting focusing on acquiring knowledge and understanding and developing skills relevant to the course being studied. This

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can make it more difficult to build relationships with other students and staff (Peacock & Cowan, 2019).

This chapter explores a Belonging Project which started in 2022, and was evaluated after the first eighteen months (January 2022 and August 2023). The project provided opportunities for law students on a distance learning degree programme to meet and interact with other students and law academics. It focused these 'belonging opportunities' at a qualification level, rather than on a specific course. The aim of the project was to explore the extent to which online events for all students studying on a degree programme enabled them to feel more connected to the Law School, improved their sense of belonging, reduced isolation and promoted well-being.

Literature Review

Belonging is a nebulous concept and difficult to define. Alyson et al. (2013) carried out a systematic literature review to define belonging and identified that there is no common definition. However, they noted similar themes, finally defining a sense of belonging as 'a subjective feeling of value and respect derived from a reciprocal relationship to an external referent that is built on a foundation of shared experiences, beliefs, or personal characteristics' (p. 1026). This is the definition which our project adopted, and it has two facets. One is psychological, feeling valued, respected and part of a group. The second is sociological, in having opportunities for shared experiences through interaction with peers and staff.

Large-scale research in 2021 focused on belonging in Higher Education found that there were four areas which form the foundations of belonging: connection, inclusion, support, and autonomy (Blake et al., 2022). Two of these relate to the sociological aspects of belonging, connection, and support. In particular the research found that the greatest impact that universities can have on students' sense of belonging is to improve the way they connect their students and facilitate peer-to-peer interactions. The other two foundational concepts were related to the psychological aspects of belonging: inclusion and autonomy. These two concepts strengthen a students' subjective experience of feeling wanted, valued and part of a community (Blake et al., 2022).

Most of the literature on belonging is based on a face-to-face environment and there has been only a limited amount of research focusing

on online learning (Peacock & Cowan, 2019). Digital learning has many advantages for students but can be isolating and lonely. Many students require flexibility to manage their studies alongside other commitments, but this can be isolating (Rush, 2018). In her study of over 1,000 students, isolation or feeling alone was identified as the worst aspect of distance learning. More recent studies have highlighted how isolation can impact on wellbeing and retention in the online learning environment (Jones & Strevens, 2022).

Jones et al. (2019) undertook a study into the well-being of law students at the Open University, which suggested that students studying digitally felt a lack of belonging and community. They argued that the social isolation experienced by students contributed to declining well-being in law students. This supports work undertaken by Sheldon and Krieger (2004) which found that law students had higher rates of poor wellbeing compared to other students, and that student motivation was impacted negatively by wellbeing. Whilst this work was undertaken in a face-to-face environment in the USA, it mirrored the findings of Croft et al. (2010) and Jones et al. (2019) in an online environment. However, all of these studies also highlighted that some students in the digital environment did not feel the need for contact and wanted to study independently.

Isolation, poor wellbeing, and motivation are closely linked and are key aspects of learning; motivated students are likely to achieve better results (Rogers, 2001). Motivation is difficult to quantify and there are numerous theories relating to this area. However, key to the concept of motivation is that of belonging. Belonging and motivation can be traced back to Maslow's hierarchy of needs (Maslow, 1943). This set out the needs of humans in a hierarchical fashion, starting with physical/bodily needs, followed by safety and security, love and belonging, esteem needs and ending with self-actualisation needs. The need to belong was part of the third level of the hierarchy under the concept of love and belonging. Herzberg's Theory of Motivation started to consider the concept of belonging a little further. The theory identified that humans have both intrinsic and extrinsic factors which will impact on motivation. He argued that humans have an intrinsic need to participate, but participation does not mean the person belongs (cited in Nickerson, 2023). A key extrinsic factor was the desire for social learning, the term social suggesting there needs to be some kind of mixing between two or more parties. Both

Herzberg (cited in Nickerson, 2023) and Maslow (1943) suggest that to be motivated, the student needs to feel as though they belong.

However, belonging plays a more important role than just motivating students. It can have an impact on both retention (Peacock & Cowan, 2019) and wellbeing (Jones & Strevens, 2022). As retention becomes increasingly important for Higher Education Institutions, belonging needs to be considered. Recent literature such as Advance HE (2019) and Blake et al. (2022) suggest that incorporating a sense of belonging requires a whole institution commitment. This should be seen as a collective responsibility to supporting student well-being and should not be left to individual courses (Houghton & Anderson, 2017). A number of scholars have argued that a sense of belonging is a positive factor contributing to retention and integration into higher education (Spady, 1970; Tinto, 1993). Developing a sense of belonging can therefore assist in the retention of students.

In the face-to-face environment the opportunity to create relationships and develop a sense of belonging often occurs naturally but in the digital environment the student does not have the natural opportunities to interact with staff and peers and develop a sense of belonging, particularly in an informal social space. Online educational environments require deliberate design of opportunities for informal peer and staff interaction to nurture a sense of belonging to an academic community. Whilst there have been studies considering how to encourage interaction and belonging within courses (for example, Garrad & Page, 2022; Lija et al., 2021), there is limited research focusing on developing a sense of belonging at a qualification level in an online context. This project aimed to facilitate opportunities to build community and belonging for all students registered on the law qualification, in order to reduce isolation, and improve well-being, motivation, and retention. The evaluation of the project aims to contribute to building the knowledge base in this area by focusing on belonging at a qualification level online.

Methods

Summary of the Project

The project was borne out of two previous projects the authors had been involved with. The first focused on the development of a wellbeing toolkit and had involved a number of focus groups with students (Jones et al.,

2020). The second project was an online peer mentoring scheme, evaluated via focus groups, individual interviews and questionnaires (Edwards et al., 2021). On both projects themes of isolation and the importance of feeling part of the institution had surfaced as issues within the digital environment.

The OU Law School provides the opportunity for students to achieve a degree via digital learning. There are many advantages to this kind of learning, and students particularly value the flexibility of digital learning (Rush, 2018). However, digital learning can also be isolating. Students have the opportunity to meet other students and staff in online tutorials, but report that the online tutorials can be isolating. Studying online does not provide opportunities such as face-to-face informal meetings that would normally occur in the brick environment which allow the development of a sense of belonging naturally via shared experiences. We therefore decided to provide more opportunities for students to meet each other and staff informally online to try and develop a sense of belonging to the Law School.

Given the flexible nature of our courses, students do not remain in stable groups throughout their studies, and this is likely to hinder their ability to form peer communities. The project therefore took a whole-school approach rather than trying to develop belonging course by course. A programme of online events for all students was developed, badged as the Belonging Project. The Belonging Project included online guest lectures, student-led coffee events and a Law School blog.

Guest Lectures

These are presented by different academics, who volunteered to take part in order to share their research with students and get to know the students better. Asking for volunteers was very successful and 22 guest lectures were offered between January 2022 and August 2023. As some academics were not familiar with the online technology used, another member of staff hosted the sessions to deal with technical issues and manage the chat box and recordings. This allowed the guest lecturer to focus on their presentation.

Student-Led Coffee Events

Students were recruited to lead each event and in order to co-create the programme, the student facilitators were asked to suggest a lived experience they would like to discuss during the coffee event. In the first six months of the project a high number of students applied which meant a careful selection of the students, with feedback to the unsuccessful. In selecting which students to lead coffee events, consideration was given to the topic proposed. Topics which reflected common issues, for example time management, and those which might apply to students with protected characteristics were given priority. Consideration does therefore need to be given to manage a high number of volunteers. By contrast, in the last 12 months of the project there were fewer applications and previous hosts had to be approached to ensure a monthly coffee event took place. Due to the co-creation approach adopted, there was a wide variety of topics offered. This co-creation approach gave the students a feeling of ownership of the programme (Bovill et al., 2010).

An online briefing was offered to the first cohort of student hosts, but no-one attended. As the student hosts were more mature with experience of facilitating events through their employment, an email was sent outlining expectations and tips for running the event. However, for less experienced students, careful consideration needed to be given to briefing the students and to ensure they have the necessary skills to facilitate the session.

In order to encourage peer-to-peer discussion, the students hosted the sessions themselves and there was no staff presence in the room. However, an academic supported the student hosts in the online room and was available for the student to contact during the event should any issues arise. It was important that students have support given the potential risk of safeguarding concerns such as inappropriate comments or discussion.

The Law School Blog

The final stage of the project was the introduction of a Law School Blog to provide a space for students and academics to share learning and experience. Initially the authors edited the blog but due to the high number of submissions it became clear that the workload was too high, and an academic was appointed to act as editor. There was also a process by which the editor sought the guidance of the project team if they lacked

knowledge of the topic of the blog, thereby ensuring a more rigorous review process. If a student blog was not accepted for publication, the editor provided support to the student to amend the blog to a publishable standard, helping to develop students' confidence and skills.

Challenges and Solutions

There were a number of challenges faced in running this project. Before setting up the project approval was needed from key stakeholders. The proposal for this project highlighted research suggesting that improving a sense of belonging improves outcomes for students (for example, Ahn & Davis, 2020; O'Keeffe, 2013). It also included the institutional context in order to explain why a sense of belonging could not be built within individual courses, given that this is easier and less resource-intensive. Highlighting the positive benefits of the project, and demonstrating consideration of alternatives, meant approval was received without any difficulties.

Costing also needs to be considered; delivering online often means the cost is low, particularly where the guest lecturers and student facilitators are all volunteers. However, there is a resource implication in terms of academic time to set up and monitor the project. When seeking institutional approval, it is necessary to consider how the project will be managed and by whom, in order to ensure it is appropriately resourced.

Another challenge was in identifying an online platform to use for the sessions and ensuring that all students on a qualification had access to it. The availability of technology to communicate online was identified by Preece (2000) as a key pre-requisite for online community building. Many institutions restrict access to online rooms to a specific group of students. There was some resistance from IT in editing access rights due to the increased workload of manually allocating thousands of students to a specific room. In consultation with IT, it was agreed that a new online room would be created specifically for this project for all students on the law qualification. Early discussions with IT to agree a suitable platform is important to avoid problems later on.

This project focused on online synchronous events, but this had the potential to be inaccessible for students who were not available on the relevant dates (for example, those with work or caring responsibilities or living in different time zones). This was partially mitigated by the recording of the guest lectures. However, listening to a recording is likely

to have a more limited impact on a sense of belonging due to the lack of interaction with others. Consideration was given to other asynchronous methods such as an online forum, but research suggests that these are not popular with students and lack engagement (Edwards et al., 2021). The inclusion of a blog was designed to be an asynchronous space for students and staff to interact, however a limitation on this was the inability to facilitate a comment section. Given the importance of staff and peer interaction in building community and belonging, further research into ways of facilitating this asynchronously would be valuable.

It was time-intensive to manually set up a programme involving up to 35 colleagues and 15 students. In order to manage this the events were split between two academics, which led to difficulties in avoiding clashes of dates for events even with the use of a shared calendar. Going forward it would be interesting to explore the possibility of using generative AI as a tool to help with these more administrative time-intensive tasks.

At the start of the project the numbers of students who would attend each session was unknown which led to a booking system for the guest lectures on Eventbrite. The guest lecturers were regularly fully booked with 250 registrations within 48 hours of opening. However not all of the registered students attended the session. In the third year we removed the booking system and numbers remained relatively static and within the capabilities of the online room and presenters.

Once the project was set up, it ran seamlessly without any problems. Some students did say that they were not aware of the project or the events. Regular email reminders were therefore sent to students each month highlighting the events occurring during that month, to ensure as many as possible were aware of them.

Methodology

A mixed-methods approach using both quantitative and qualitative methods was used to evaluate the first eighteen months of the project. This involved the collection of data focusing on participants' views. Statistical data on attendance was also considered to identify and compare the level of student engagement with the different events.

This study was performed in line with the principles of the Declaration of Helsinki (World Medical Association, 2013). Approval was granted by the Ethics Committee of the Open University. Informed consent to participate and publish was obtained from individual participants through

participation information being provided and consent being obtained. All data was held securely and anonymised where appropriate. In order to ensure the researcher's position did not influence the interviews (for example, due to an imbalance of power), the interviews were carried out by a third party who was not part of the project team.

Attendance Data

The attendance data was collected and analysed on two occasions. Initially, after the first six months of the project, attendance was considered for the first 10 guest lectures and six coffee events. When counting synchronous attendance, duplicate entries were removed (where students entered the room more than once). Students who stayed under five minutes were also deleted from the data. We also collated the numbers viewing the recordings of the guest lectures. It was not possible to filter the numbers of those listening to the recordings in the same way due to the limitations of the system, and so these numbers could include students who also attended the synchronous event or listened to the recording more than once.

The attendance data was again collected at the end of the final 12 months of the project in the same way, thereby allowing a comparison with the early stages of the project but also noting areas where attendance data might have changed. This allowed some conclusions to be drawn about students' engagement with the project.

Survey

At the end of the final 12 months a survey was sent to all eligible Law students. A survey was the best method to reach the widest number of students (Cohen et al., 2000). There were six questions, including both open and closed questions. Open questions included asking what the students understood by belonging; what makes them feel as though they belong to the Law School; and what the Law School could do to increase their sense of belonging. Closed questions included what project events or activities they had participated in; whether participation in those events impacted their sense of belonging and how; whether they attended any other events which improved their sense of belonging; and the extent to which they feel as though they belonged to the university, faculty, school, and course. For the latter closed question, the Likert scale was used to

allow students to rate their sense of belonging to enable comparison. However, it must be noted that this scale does have drawbacks, not least that the rating can be subjective and not always represent how people feel (Salopek, 2004).

The survey was sent to 1000 students; however, we were disappointed to only obtain 14 responses. On reflection this could have been due to the timing of the survey which was sent just as students were completing their courses and going away for a break. The findings therefore need to be considered in the light of the small number of responses and this is a limitation in the evaluation process.

All the survey data obtained was evaluated via a thematic approach following the work of Braun and Clarke (2006). Each team member considered the data and identified their own themes. These were then shared to generate final themes. The team were mindful that themes may not appear (Braun & Clarke, 2022) and had identified initial possible areas such as the administration of the project, or timing of events as a coding frame. However, these themes were further developed in evaluation meetings. The survey allowed us to draw conclusions about the students' views on the project.

Interviews

After six months, five semi-structured interviews were conducted with students and the tutor who had participated in the organisation of the project. Interviews were used as they provided the opportunity to follow up comments and ideas presented during the interview (Bell, 2010). Questions included asking about their understanding of belonging; whether they felt a sense of belonging to any academic community; attendance at specific events and the impact this had; the reasons for participating in the project; what was both enjoyable and least helpful; and what could be improved. The numbers of research participants attending the interviews were small and this is a limitation on the information collected. However, we were able to cross-reference the interviews with the survey which allowed us to have more confidence in drawing conclusions about the students' views.

Findings

Student Engagement with the Project

Online distance learning students are often time poor (Rovai, 2002), and the Belonging Project events were voluntary and unrelated to their courses. Engagement with an activity, such as attending or listening to the recording of an event, therefore suggested that the students found that activity beneficial to them and their studies (Massingham & Herrington, 2006). The attendance data was triangulated with the interviews and surveys to add weight or lessen the reliance placed upon their expressed views. It was not possible however to determine the reason why students found events useful from the data alone.

Student engagement was measured for the 22 guest lectures which took place during the 18-month period, 16 on substantive law topics and six skills-based sessions (Table 8.1).

Table 8.1 Number of students engaging with the substantive guest lectures on law-based topics

Substantive Guest lecture (listed in order presented, earliest first)	*Numbers attending*	*Number of times recording watched*
COP26	33	116
Criminal Justice system	79	111
Climate change	56	48
Feminism & art	73	124
Divorce law 1	69	83
Children's rights	44	55
Refugees	1	31
Human Rights and AI	73	96
Human rights law	85	58
Divorce law 2	96	48
Children's rights	29	22
Migrants' rights	63	17
Digital technology	24	21
Space law	46	24
Drugs law	26	9
Law of the sea	57	18

Between one and 96 students attended the substantive guest lectures. The session on refugees with one participant was mistakenly not advertised to students in the same way as the other lectures which accounts for the attendance of only one student. Whilst the event is included in the table above for transparency, it was excluded from the calculations of the average live attendance to ensure a uniform comparison. An average of 53 students therefore attended the sessions. This is a conversion rate from those registered to attend of only 20%. The most popular sessions were those on divorce law, human rights and the criminal justice system.

The guest lectures were recorded, with between nine and 124 views of each recording. The more recent sessions had fewer viewings due to being available for a shorter period of time. There was an average of 55 views per session. However, the value of listening to a recording in developing belonging is unknown as it does not offer any opportunity for interaction between staff and students. This is an area where further research could explore whether asynchronous viewings of recordings impact on a students' sense of belonging.

In total 854 students attended the substantive guest lectures, and there were 881 viewings of the recordings. Whilst the live attendance is unique data, as explained above the viewings of the recorded lectures could include students who watched multiple times, or who attended the live lectures and subsequently watched the recording. On average therefore, up to 108 students engaged with each event (Table 8.1).

The project also offered six skills-based guest lectures covering general skills and legal skills. Between 41 and 104 students attended each session, with an average of 66 attending the sessions. This is higher than those

Table 8.2 Numbers engaging with the skills-based guest lectures

Substantive Skills lecture (listed in order presented, earliest first)	*Numbers attending*	*Number of times recording watched*
Answering legal problem questions	104	2481
Essay writing	41	419
Research theories	46	40
Practical research	47	21
Practical skills	76	43
Becoming a lawyer	83	41

attending the substantive guest lectures, indicating students valued the skills-based sessions more. This preference for the skills-based sessions is also demonstrated through the viewings of the recordings: there were between 21 and 2,481 views of each lecture with an average of 507 views. Even discounting the viewings of the legal problem session (which was disproportionate at 2481 viewings compared to the others), there was an average of 113 viewings of the other sessions which is double the number for the substantive guest lectures (Table 8.2).

There were 18 coffee events during this period, each one suggested and facilitated by a student volunteer. These sessions were not recorded to encourage students to interact with each other and feel they were in a safe space (Table 8.3).

As anticipated, numbers were smaller at the coffee events; between one and 15 students attended each session, with sessions on living abroad, studying whilst being over 55, studying with dyslexia and mental health being the most popular. An average of seven students attended the sessions (Table 8.3).

Table 8.3 Numbers engaging with the student-led coffee events

Student coffee event (listed in order presented, earliest first)	*Numbers attending*
Soldier to veteran	1
Working professionals	3
Let's talk dyslexia	13
Mental health and studying	11
Mental wellbeing	15
My personal journey	8
Living abroad	15
Returning to education	7
Dyslexia	1
Working in law	8
Imposter syndrome	4
Let's chat	4
Mental health	7
Over 55	14
Parenting	3
Neurodiversity	5
Caring	3
English as a second language	2

Table 8.4 Number of views of the Law School blog

Month	*Number of page views per month*
May 2022	0
June 2022	148
July 2022	331
August 2022	139
September 2022	88
October 2022	273
November 2022	285
December 2022	199
January 2023	1024
February 2023	647
March 2023	559
April 2023	509
May 2023	384
June 2023	406
July 2023	201

Table 8.4 relates to the blog, which started in May 2022, during the fifth month of the project. By 31 July 2023 49 blogs had been published of which 57% were written by academic staff (28), 39% by students (19) and 4% by alumni (two blogs). This is an average of 3.5 blogs per month. The blogs are on the Law School website, which is an external website open to anyone to view.

The numbers viewing the blog varied from month to month, the lowest being 88 views and the highest 1084 views. There was an average of 370 views per month across the period.

Students' Views on Belonging

At the end of the 18-month project a survey was sent to 1,000 law students selected at random to ask their views on belonging and the project. As stated previously only 14 students responded to the survey, and so the survey only provides an insight into student views. However, their answers provided some interesting commentary on the theme of belonging and wellbeing.

When discussing what it means to belong to an academic community, eight of the responses referred to having contact with staff and peers, in a place where people learnt together in a community. However, five of the responses went further referring to being supported by staff and peers and

helping others to succeed. This supports the findings of Blake relating to connection and support being important sociological aspects of belonging (Blake et al., 2022). One response linked belonging explicitly to reducing isolation: 'It means a sense of supportive community of like-minded individuals and not feeling isolated.' Students considered that belonging to a community meant actively receiving and giving support which ameliorated the isolation distance learning can bring and implicitly improved wellbeing. This reflects the findings of Jones et al. (2019).

In their responses students reported that it was more difficult to feel like they belonged due to the online and distance learning nature of their studies (four students). Students referred to feeling isolated, describing this as 'disenfranchisement.' Rush (2018) found that isolation was an important consequence of distance learning, and this was echoed in our survey with students commenting on the difficulties in forming relationships and communities with other students online, comparing it unfavourably to face-to-face learning. However, one student chose distance learning as she did not want to be part of an active community: 'Distance learning is different – I'm introverted by my nature. It's a choice by me to not get involved.' Other academics have also found that some students actively choose online or distance learning study as they want to focus on their study, and not become involved with the wider community (for example, Croft et al., 2010; Jones et al., 2020).

A number of students reflected on their feeling of inadequacy (two students) and lack of confidence (three students): 'I struggle with feeling good enough,' 'I can lack self-confidence and feel that I don't belong,' and it sometimes felt like 'climbing a mountain.' One student referred to planning to attend online events, but then 'always getting cold feet.' Heaton-Shrestha et al. (2009) identified lack of confidence as a characteristic of distance learning students. However, a lack of confidence has not previously been reported as a barrier to developing a sense of belonging, and this was an unexpected finding which merits further research.

After the first six months of the project, interviews were held with students and a tutor. Similar themes to those in the survey were identified through these meetings. The students talked about the isolation they felt studying online and the challenges this posed to forming relationships with others. Students reported that they generally had limited interaction with other students, apart from some contact at tutorials, and this mirrored the findings in the survey. They therefore welcomed the opportunity to meet staff and students at qualification online events and

enjoyed them. The tutor also considered the events provided a valuable opportunity not only for students to meet each other, but also to meet staff. This reflects the themes found in the later survey.

Conclusion

The findings of the project suggest that students valued the opportunity to attend online qualification-based events and participate in an asynchronous blog, with attendance data, submissions of blogs and readership of the blog being high and students being positive about the events in interviews. Students suggested the need for a deliberate encouraging of a sense of belonging, particularly for students who study partially or wholly in the digital environment, due to the difficulties in forming relationships in this setting. In the interviews students linked a sense of belonging to overcoming issues of isolation, and such projects therefore have the potential to impact positively on student well-being and mental health by reducing some of the risk factors associated with poor well-being of learners.

Students reported through the survey and interviews that they had not been able to develop relationships in their courses and they welcomed the opportunity to take part in more informal online events open to everyone on a qualification. This may explain the unexpected finding from the attendance data that the general skills-based guest lectures were more popular with students than those based on substantive law topics, where students had a greater opportunity to take part in the session, share experiences, and interact with each other.

A further unexpected finding from the interviews and survey was that a lack of confidence could be a barrier to taking part in belonging activities. Whilst the link between online learning and confidence had been identified previously, confidence had not highlighted in previous research as an issue preventing a sense of belonging. Further research is needed to establish whether this is specific to a digital setting or is a wider issue also relevant to the face-to-face environment. However, those looking to develop belonging online will need to consider the impact of a lack of confidence amongst students and provide support to overcome this to enable all students to benefit from the opportunities to belong to their institution and build online communities of learners.

From September 2023 onwards the Belonging Project developed to include work with academics, who can face the same issues of isolation

and wellbeing as students. There was also a focus in the student project on inclusion, following the findings of Blake et al. (2022). Their research found that inclusion impacted positively on belonging. A competition was held to understand students' views on inclusivity. Academic coffee events were also introduced, giving an opportunity for students to meet staff in smaller groups for informal discussions. The academics suggested a theme for the event based on their own background, in order to inspire students and act as a role model.

Considering future developments, the project is starting to consider how to best utilise technology to enhance the project. Following a small-scale pilot using moderated social media (WhatsApp groups) to facilitate peer mentoring, there may be the potential to use these methods to encourage communities to develop online. There is also the potential to use generative AI to assist in the administrative tasks of running the project. Many universities are trialling the use of generative AI chat bots to provide support to students, and an interesting area of research would be their potential to support students more holistically. Would talking online with a chat bot, or a chat bot and human mix, encourage belonging in the same way as online synchronous events?

Previous research had suggested that creating community in a digital environment does not happen organically and academics have to deliberately design in opportunities for students and staff to interact and form relationships in both formal learning spaces and informal settings (Advance HE, 2019). This research explored one way this can be done across qualifications, through the use of synchronous online sessions and an asynchronous blog. Our findings suggest this is one way of overcoming the isolation which is identified clearly by students as a barrier to their learning (Rush, 2018).

Tips For practitioners interested in introducing similar projects, the following suggestions may be of assistance:

- Obtain buy-in from key stakeholders, highlighting the benefits of improving a sense of belonging among students;
- Decide whether your programme will use synchronous or asynchronous methods of communication;
- Be realistic about the time setting up and running a project will take;
- Agree with your IT department at an early stage which platform will be used for the events;

- Ensure presenters, whether staff or students, have sufficient support and /or training to be able to present or facilitate sessions in the digital environment;
- Have a communication strategy with students to ensure they know about the events and are regularly reminded of them;
- Consider how your programme can bring together students with the same background or characteristic, as a way of addressing inclusion concerns.

Discussion Points

- Do asynchronous methods (such as listening to a recording, writing or reading a blog, or participating in forums) positively impact a students' sense of belonging?
- What role does a lack of confidence play in preventing students from building community and developing a sense of belonging?
- Are concerns about a lack of confidence specific to the digital setting or also relevant in the face-to-face environment?
- Could generative AI support belonging projects, either for administrative support or as a conversational tool in addition to staff and students?

Further Reading

For those interested in finding out more about our Belonging Project, there is a more detailed evaluation of our research in Edwards & Hardie (2024). For a more general analysis of the importance of belonging in a university setting, please see Blake et al. (2022). Peacock and Cowan (2019) provides more information about developing belonging in a digital environment.

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CHAPTER 9

Supporting Care Experienced Students: Piloting a Project in the Faculty of Business and Law

Grace Allen, Sarah Henderson, and Joanna Mirek-Tooth

Introduction

A 'care leaver' normally refers to a young person, between the ages of 16 and 25, who has been 'looked after' for a proportion of their childhood (OfS, 2021). At The Open University, 68% of our students are over 25 years old and so the term 'care experienced' is preferred in order to be inclusive of those who have had experiences in the care system while growing up, no matter how long ago, but might still face ongoing barriers in Higher Education. The Department of Education reported that only 13% of care experienced people progressed to Higher Education

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(by age 19), compared to 43% of other young people. Furthermore, these students are twice as likely to withdraw from their studies as they continue to face both financial and accessibility obstacles as well as experience many other barriers (OfS, 2021). In 2021/2022, the Open University reported 1,455 students with declared care experience, the most of any UK university. Between 2015/16 and 2021/22, a total of 525 students across the Faculty of Business and Law had declared themselves as care experienced, with 130 of these students studying in 2021/22. This number grew further in 2022/23 to 360.

In April 2021, looking to create an online environment where students with care experiences feel a sense of academic and intellectual belonging, we came together as a team of like-minded academics to develop support provisions. The project team included three tutors and five members of academic management across the Faculty of Business and Law. This interdisciplinary group brought together experiences of supporting care leavers in higher education, through charity work and social service support provisions, a family law lecturer, and an academic who was involved in the development of the institutional policy. In line with the Open University's Teaching and Learning Plan (2022–2027) to 'ensure that our support is tailored to the needs of student groups and cohorts', this project aimed to investigate and design a framework of online support for students with a care experience background. A three-month pilot project commenced in November 2021 and its evaluation was extended throughout the 2021/22 academic year. Since August 2022, the more successful elements from the initial project have continued to be available to students across the faculty.

Literature Review

Concerns about the academic and overall life outcomes of children in foster care have been present since at least the 1970s (Essen et al., 1976). However, it was not until the Children Act of 2004 that Local Authorities were specifically mandated to promote educational attainment among these children (s52 (3A) Children Act, 2004). By the time of the 'Care Matters: Time for Change' White Paper in 2007 (DfES, 2007), it was observed that only 12% of children in foster care achieved five GCSE passes at A* to C, in contrast to 59% of the general population. In 2015, these numbers were recorded at 18% and 64%, respectively (DfE, 2017). The reasons behind these poor educational outcomes are

complex and varied. In many cases, the root cause is the childhood trauma that led to the child being placed in foster care (Welbourne & Leeson, 2012). Mental health challenges are widespread among children in care, with DfES (2007) noting a rate of 45%, increasing to 75% among those placed in children's homes. These challenges can manifest as behavioural, emotional, or social difficulties in both home and school environments. For a minority, additional traumatic experiences may stem from being in care, such as breakdowns in relationships with foster caregivers (Welbourne & Leeson, 2012). Children in care often display lower levels of self-confidence or self-esteem, which could also be connected to their history of trauma (Lewis et al., 2015). Although Looked After Children—those who have spent any time in care (NSPCC Learning, 2024)—and care leavers account for less than one per cent of the population, almost a third of adults in prison have been looked after by a local authority at some point (The Centre for Social Justice, 2014). Other striking statistics refer to care leavers entering employment, with only 22% of individuals who have been in care being in employment at the age of 22, compared to 57% of those who were not in care (Young & Lilley, 2023).

In 2005 one of the first studies on the experience of care leaver students in higher education was published (Jackson et al., 2005, cited in Harrison, 2020). This research revealed that these students encountered obstacles unique to their care experience, such as financial hardships, difficulties in securing year-round accommodation as well as academic challenges resulting from disrupted schooling; however, the available academic literature regarding the retention of these students is limited. Despite efforts to create equitable opportunities, these students continue to face challenges that significantly impact their experiences in higher education. Policies aimed at improving access to post-compulsory education, including university, started to have an effect following the implementation of the Children & Young Persons Act, 2008 in England. This Act mandated local authorities to offer both financial and practical support to care leavers pursuing education up to the age of 25. Initially, the introduction of measures and guidelines, accompanied by specific support for care leavers entering universities, had a positive impact on the numbers of care leavers aged 19–21 entering higher education. However, despite these efforts, enrolment rates have stalled at approximately 6%, notably lower compared to the nearly 50% enrolment rate for those who were never in care (Harrison, 2020). A more detailed analysis, including

individuals up to the age of 23, revealed a 12% university participation rate (Hauari et al., 2019).

In 2019, the newly established Office for Students reiterated its commitment to include care leavers in the regulatory guidelines for universities regarding access and participation. A critical concern currently revolves around retention rates (DfE, 2018). The dropout rate for students with care experience, which includes care leavers, stands at 38%, significantly higher compared to the overall rate of 6% (Barton, 2023). These numbers translate to previously looked-after children being eight times less likely to enrol in university and six times more likely to discontinue their education (Barton, 2023). These low rates highlight the existing gap within HE policies and practices and lack of awareness on the challenges these students face (Child & Marvell, 2023). However, those students who do complete their studies narrow the gap considerably between themselves and their graduate counterparts. Among university graduates, 71% of care leavers, a year and a half after graduation, are either employed full-time, studying full-time, or pursuing both employment and further studies, as opposed to 77% of graduates without care experience. Care leavers who graduate from university earn, on average, just £660 less than non-care leavers 18 months after graduation (Young & Lilley, 2023).

Recent studies have identified key barriers that hinder the access and progression of care experienced students in higher education. Financial constraints, lack of stable support networks, and limited access to guidance or mentorship are among the primary obstacles (O'Neill et al., 2019). The absence of family support and the emotional baggage associated with their backgrounds often create an additional layer of challenge (Murphy, 2020; O'Neill et al., 2019). Although care experienced students are not a homogenous group, two factors have been identified to be key in supporting care leavers: proactive and consistent support from a 'significant adult' and financial as well as accommodation support (Hauari et al., 2019). Mature care experienced students aged 26 and above, who have surpassed the age eligibility for formal assistance, have also highlighted the need for access to knowledgeable and high-quality practical, financial, and emotional support, as well as advice and guidance, which are crucial for their ability to continue with their studies (Harrison, 2020).

Challenges facing universities include disclosure of care experienced status. Hauari et al. (2019) point out the significance of openly acknowledging students' past or current status as 'care experienced'. One of

the concerns is the potential stigma attached to having been in care and the possibility of facing differential or prejudicial treatment, whether deliberate or not. Some individuals aim to transition away from these experiences once they become adults and achieve independence from the care system (Baker, 2017). Disassociation completely from the identity or label of being a 'care-lever' due to the association with negative influences and therefore potential differential treatment this identity may bring is a recurring theme (Mayall et al., 2015). Bluff et al. (2012) found that care leavers who transitioned into Higher Education considered the label negatively and rejected any connection with it, suggesting that they felt the identity may impact their educational success.

In a study commissioned by UCL Access and Widening Participation Office, Hauari et al. (2019) found that feeling a sense of belonging plays a crucial role in motivating and safeguarding student engagement, persistence, and achievement. This sense of belonging is particularly important for many care experienced students, given the instability in their past experiences, as they aspire to integrate and be perceived as a conventional or 'normal' student. Care experienced participants reported that personal tutors and university staff have a key role to play in fostering a sense of belonging. The study suggests this can be achieved through creating an environment where they feel a sense of academic/intellectual belonging (based on connections through shared interests), as well as creating a space where students feel they are being actively supported in their studies, for example, through proactive discussions and open-door policies (Hauari et al., 2019). One potential way to do this is to ensure the students are consulted throughout the development of support, and that support is available even if students choose to not access it (O'Neill et al., 2019).

In their study, Hauari et al. (2019) also reported that interviews with care experienced students highlighted several common challenges affecting their adjustment, academic progress, consistency, and completion of studies. These challenges included academic skills, mental wellbeing, confidence, financial support, family situations, and academic assistance. However, it is important to understand that, while these issues could affect care experienced students, not everyone faces them equally or with the same impact on their academic journey. Like other students, care experienced individuals are diverse; each has unique experiences and needs. However, care experienced individuals often face greater vulnerability due to instability in their personal lives, which can affect their ability

to continue their studies. Furthermore, these students often have no, or a limited, family network to support them at home and often mistrust authority (Hauari et al., 2019).

Conversely, Thomas (2012) makes an interesting point related to students' habitus and the inclusion process. She points out that students who feel out of place in their higher education institution, may do so due to being targeted with additional support for social, emotional, or academic needs, and might experience a sense of not fitting in, leading to early withdrawal (Thomas, 2012, as cited in Hauari et al., 2019). Therefore, it is crucial for universities to ensure that all students, particularly disadvantaged groups like care experienced students, are informed about, and have access to, various support services that can enhance their sense of belonging and academic progress. As Thomas (2012) emphasises, this should be done without singling out specific groups by providing support as a 'special case'. However, it is essential for universities to actively inform care leavers about available support since they often come across such assistance accidentally or through informal means. Therefore, a further challenge for universities is how to make support inclusive without exposing students to potential or perceived stigma (Thomas, 2012 as cited in Hauari et al., 2019).

O'Neill et al. (2019) found the characteristics of care experienced students cross over with those of other marginalised groups in higher education, such as individuals from low-income families, students with disabilities, older students, and those from various minority ethnic or refugee/asylum seeker backgrounds. They suggested that this intersectionality strengthens the case for more specific requirements in pastoral, language-related, and practical assistance when entering university, and that the presence of a consistent and supportive relationship with a trusted staff member can significantly contribute to the retention of care experienced students in their academic programmes. Other research shows that tutors are an integral part of the support network, and the use of learning analytics can play a key role in allowing tutors to identify student needs and encourage participation (Webb et al., 2017, as cited in Hauari et al., 2019).Tutors 'must be appropriately supported by their institutions to develop pedagogical practices that create an environment of trust, belonging and inclusion' (Burke et al., 2016, p. 8).

The gaps identified in meeting the specific support needs of care experienced students in a university setting have directed the design of a framework of online support for these students. In identifying the key

themes from the literature review and drawing on experiences and insights of students at the University, as well as expertise from the Care Leaver Association, steps were taken to raise awareness of support needs across the faculty and design and implement this support.

Methods

Initial Approach

During the initial stage of inquiry into care experienced students' needs in an online learning environment, we met with three students who were known to the faculty as having had a care experienced background. Through informal discussion, these students highlighted the need for a wider understanding by staff of the specific challenges faced by students. Students felt a keen sense of isolation, which was exacerbated in a distance learning environment. The students felt that enhanced tutor and peer-to-peer support was critical. This input was valuable in supporting the inferences from the literature review, but also added an additional perspective on the challenges from the point of view of a distance learning student. It was important to bear in mind the breadth of experiences students have had in the care system and the variety of barriers faced, as well as the intersectionality, including range of ages, personal circumstances and which nation they had care experience within (the OU includes students across the UK and Ireland). Consequently, we approached representatives of the Care Leavers Association, who work with both individuals and groups of care leavers of all ages, to request their expertise in designing our project.

Using insight from the literature review, OU student perspectives, and expertise from the Care Leavers Association, we identified three prominent themes to focus our interventions.

i. to raise awareness of the needs of these students across the faculty;
ii. to implement one-to-one support for students; and
iii. to design targeted information and guidance for the students.

Having identified these interventions, were successful in our application for funding from the faculty for a three-month pilot project.

Raising Awareness

The commitment from the Office for Students (2019) to support care leavers in areas of access and participation established the need for raising awareness as a key intervention within this project. Discussions within the project team regarding how to respond to students needs within online environments were linked to Hauari et al.'s (2019) study on the importance of an 'open-door' approach where students can access assistance. Further discussions with care experienced students enhanced our understanding of the context of being a care experienced student in an online learning environment and the common challenges they faced, such as consistency of support. To raise awareness of this across the faculty we facilitated a series of online training workshops with representatives of the Care Leavers Association, open to tutors, core academic staff, and professional service staff. The workshops were designed to be interactive and were aimed at developing understanding and appreciation of the challenges and barriers this group of students' face, giving insight into how these students could feel about the academic environment and how this could impact the way they interact with others. The workshops also explored the needs of this group of students and helped attendees consider how they can develop their practice on a personal 1:1 level as well as providing advice on the wider faculty approach. The theme of raising awareness has been reiterated across recent research and also highlights the need to underpin HE practices (Child & Marvell, 2023). Ongoing awareness raising has continued within the faculty, including in-house resources such as a blog on the Scholarship Centre for innovation in Legal and Business education (SCiLAB) pages to promote the project.

One-to-one support

Three tutors were recruited to provide bespoke support for these students. We initially named these roles 'Care Champions' and set about recruiting these tutors internally. Unlike most universities, the majority of the Open University tutors are part-time and hold this role alongside other academic or practitioner roles elsewhere. It was envisaged that the Care Champion role would be in addition to their teaching responsibilities. A job description for prospective candidates outlined the core responsibility of providing support for any student who has experiences

within the care system. The expectation was that the Champion would provide an online profile which would then be shared with students.

The job description of this role included the following tasks:

i. listen to any concerns the students have;
ii. provide a confidential and safe environment for students to speak;
iii. provide any practical academic advice and guidance that they feel is suitable (not individual study support sessions or mini tutorials);
iv. signpost students to further support (internal and external);
v. ask students (if appropriate) whether they can report on any specific themes which were discussed;
vi. remind students that they can inform the University about their care experience through the Student Support Team.

The selection criteria were designed to help identify candidates who had either professional or personal experience of supporting people who had previously been looked after. Examples of professional experience could include working within a charity or local authority in a role which has supported care experienced people. In relation to personal experience, this might include tutors who are care experienced themselves, or have worked within the care system as a foster parent, adoptive parent, or other supportive relative. We asked that the applicants be willing to share their experiences and actively help shape the design of support provisions, whilst providing assurance that experiences would be treated as sensitive information and shared in confidence. Three tutors applied, each providing a strong application which included experience of supporting care leavers in a variety of roles previously. All three were appointed as Care Champions.

Information and Guidance

The guidance for students was designed in conjunction with the tutors recruited to the project. Care was taken to make the guidance accessible to all students and was therefore available on a webpage on each of the 'Study Home' websites within the business and law schools. Study Home sites are areas of the University website which include information about their specific discipline (e.g. undergraduate business and undergraduate law), including study skills, careers advice and signposting, notices,

qualification information, and online Adobe Connect rooms for course-wide events. This information explained that a team of academics within the faculty had come together to identify areas where we could provide additional support for care experienced students during their studies and signposted to other areas of support. It also hosted a profile for each Care Champion which included a profile picture and contact information. The profile was aimed at instilling confidence in students to make contact if they wished to and, we hoped, would contribute to developing a sense of belonging by demonstrating that their tutors were available to help them link into the wealth of academic and pastoral support available to them, both internally and externally to the University. We carefully designed these profiles to showcase these dedicated tutors as supportive figures, thus attempting to limit any sense of power imbalance between tutors and students. Additionally, the pages contained useful information, links to the Open University Student Support specialists, and signposts to further internal and external resources for care experienced students.

It was important for this project that all information and guidance provided could be accessed anonymously by students. Baker (2017) referred to potential stigma attached to having been in care and leading to some students striving to disassociate themselves from this label (Mayall et al., 2015). The issue of identification as a care experienced person was also highlighted by students in the project. Drawing on these insights, it was made clear that students would not need to disclose information surrounding their backgrounds; the support would be available regardless of personal circumstances and whether they had disclosed their status to the university. The support offered was promoted to students through internal communications with the help of the tutors through their online group forums, as well as external communications. Working with the internal social media team, a full social media campaign was launched, which raised awareness of the initiative through Facebook™, Twitter (now known as X™), and LinkedIn™.

Follow-Up Approach

Following the three-month initial pilot, we successfully sought further funding to roll out the project for the full 2021/22 academic year. The initial pilot was evaluated, including feedback from students, and some notable changes were made. Firstly, a comment was made by a student around the term chosen ‘Care Champion’. They considered this

to be somewhat patronising and felt that this could be a barrier to students contacting this role holder. On review and having consulted with representatives of the Care Leavers Association, we reverted to the use of 'tutors' to make this provision clearer, and more familiar to students. Another key area we considered was networking or providing peer support which would help care experienced students to feel more embedded within the wider university community. We therefore created three online forums for students to connect and a dedicated online space for virtual networking sessions. It was important to build a sense of community on each programme so that students could seek support from each other. The forums were designed to be inclusive to all who have experiences within care and were a safe space to participate in, or just to browse—whichever they were most comfortable with. We hoped this would become a place for students to meet others and network. We posted updates on this forum, including events and information on sources of financial and well-being support.

Findings

Student input into the design of the project highlighted a number of factors. Students felt isolated and commented on the differences in the barriers they faced compared to others. For example, one of the students that participated in the project said, 'Can you ever be on the same playing field? Can anywhere replicate that network? Probably not, but we have to try to build something different that works instead' (Student A). Students also spoke about the importance of support networks, which are rooted in the sense of belonging. The same student also commented, 'We need to build our own networks and having support groups and clubs in place to support us; and following initiatives like this one can ensure that we aren't going through this alone. We can build back stronger and better, because with initiatives like this one here in FBL we have found our own network, and it works' (Student A).

Data used to evaluate the initial 3-month stage of the project, to evaluate the popularity of resources, demonstrated that the three webpages were visited 100 times by 93 different students. We considered this a success on the basis that only 130 students had declared as care experienced at this time. However, due to the anonymity of this data, we do not know definitively if these are the same students who had declared a background in care or a different group of students. Whilst students did

engage with webpages, the offer of one-to-one support with tutors was not taken up. This confirms known barriers to engaging with students with a care experience background; that they often refrain from identifying themselves. There may be a myriad of reasons for this, from not wanting to be stigmatised to simply not wanting to acknowledge this as a continuing facet of their identity (O'Neill et al., 2019). Although the number of students declaring themselves as care experienced grew from 130 in 2021 to 260 in 2022 in the faculty, it is not known if this is due to an increase in care experienced students registered, or whether this was simply an increase of existing students declaring themselves to be care experienced. Since 2021, when the Open University developed the Care Experienced Students Policy, mechanisms to support students university-wide have been developed including through scholarship funding and bursaries available across all 4 nations of the UK. This increased emphasis on supporting these students may well be a factor in the increased declaration rates, but a contributing factor could also be the support provided within the faculty itself.

Additionally, students who have experienced care may hesitate to seek assistance or request support they require, due to negative past experiences when seeking help. One student stated, 'I have very little faith in the system and people in positions of authority' (Student B). This lack of confidence and trust in professionals designated to support them may be rooted in their childhood experiences (Baker, 2017). At times, students who have experienced care may refuse initial support offered because they believe they do not require it. In spite of this, we were committed to providing an 'open-door' policy and being adaptable, with responsive systems in place to ensure that necessary support remained easily accessible. To ensure this accessibility to all, we looked to promote this project in a number of ways. The communications strategy included a social media campaign which showed moderate activity with many posts receiving 'likes' and reposts. For example, the first post on Twitter received over 30 likes and 16 retweets. Additionally, faculty tutors engaged with the strategy and on request from the project team, posted a message on their online module forums linking to the support webpage. The strategy made it clear from the outset of the project, that the support and resources we provided could be accessed anonymously. This is another area identified as crucial by one student who participated in the project.

The three awareness training workshops had over 60 attendees, mainly from The Faculty of Business and Law, with some from other faculties within the university. Data collected from responses to a feedback survey showed that there is a need to build awareness across the faculty with all respondents agreeing that this helped them shape their understanding of the needs of care experienced students. One participant commented 'it opened my eyes and made me think about the unique issues faced' (Participant A), and another said that this 'gave insight, particularly on the different types of care experience and its potential longitudinal impact throughout life' (Participant B). The sharing of expertise and research by the Care Leavers Association (2021) further supports our findings from both the literature and discussions with our students, that a sense of belonging within the academic community is particularly important. This may be important to all students but, for those with care experience, it is often a direct consequence of instability and potentially disruptive past experiences. A sense of belonging can be enhanced through interactions with both peers and through feeling seen by staff members. Students within our faculty did not seem to be enthusiastic in interacting with support offered but instead preferred a more passive approach to digital information dissemination, using this as more of a repository of resources. For example, as already stated, there was no take up of interaction with our dedicated tutors and limited engagement on the forums.

Impact

The series of online training workshops with invited representatives of the Care Leavers Association had successfully raised awareness within the faculty of the specific barriers faced by care experienced students. Impact from the workshops was seen with overwhelmingly positive survey data showing all respondents rating the workshops as valuable, and 58% of these as extremely valuable. The workshops offered an opportunity for participants to reflect on their practice, with one participant commenting that they would look to offer 'more visibility of support' (Participant C) and another about tailoring 'bespoke and consistent spaces and messages' (Participant D). One participant remarked 'it really made me think about what barriers there are, and how we can assist. It was rather a sobering exercise' (Participant E). Another agreed saying it was 'very thought provoking and spurred me on to wanting to ensure we support this group of highly disadvantaged students as best we can' (Participant F).

Participants reported that this enhanced understanding was valuable and increased their confidence to support individual students who identified as having care experience. Another participant wrote 'it added gravitas to my [Associate Lecturer] role…that our students experience inequalities, and our role, is an important one to empower them to overcome these' (Participant G). Participants from outside the faculty spoke about wanting to bring this support to their schools, consequently this awareness training has been adopted outside of the faculty. This awareness has further spread to other Faculties following a presentation by one of the authors at a cross-faculty online event.

Utilising this enhanced understanding of the needs of these students, members of this project team represented the faculty at a university-wide working group tasked with designing provisions for a university approach in supporting care experience students. This working group achieved many outcomes, including the development of a care experience 'flag', an indicator on a student profile for those who have declared their care leaver status. This profile information is visible to tutors and forms part of learning analytic data, which is a crucial tool in a digital learning environment to empower tutors to tailor their support and interventions based on the needs and circumstances of individual students. Within the faculty, to ensure the sustained impact on tutor interactions with students, tutors are offered the opportunity to attend CPD sessions based on the findings from this project around the barriers faced by care experienced students and the ways in which tutors can support students' studies. Care experience, as a relevant student characteristic, will also be highlighted as an area for consideration in training and development sessions for tutors on using data analytics tools.

Conclusion

The project sought to investigate the need for, and to develop, support for care experienced students within the Faculty of Business and Law. Learnings gleaned from the initial three-month project pilot launched in 2021 were adopted within the remaining part of the 2021/22 academic year. With declaration rates increasing and reportedly an increase of care leavers accessing higher education (UCAS, 2022), it is important to continue to focus on developing effective mechanisms to support this group of individuals. This project has worked as a springboard for developing future provisions within the faculty.

The outcomes of this project have identified clear gaps in knowledge of the needs of this group of students. This, combined with the formal commitment from the Office for Students (2019), underpins the ongoing work being undertaken across the faculty and wider University. Faculty implications include development of further CPD sessions, clear information and guidance on support methods including signposting to the Care Experience Policy, and student co-creation and embedding of the student voice across student experience enhancement projects. Lack of direct student engagement with the one-to-one tutor support provision provided within this project has resulted in more focus being placed on the development of peer support networks. Revisions will be made to the project's communications strategy focusing less on terminology around care experienced students and more on students who may not have support at home, which may include those with care experience. Focusing on supporting these students will draw together those who may wish to develop networks in a digital space developing student-led mechanisms rather than tutor-guided support, to remove any sense of power imbalance which could be between tutors and students. Working with the developed understanding around reasons for low student declarations has meant that we can focus more fully on providing 'open-door' support and resources that can be accessed anonymously.

Bespoke tutor support is a costly initiative which, in spite of our efforts, did not gather traction. We conclude, therefore, that the nature of this support was not the best use of funds for distance learning students. As already mentioned, lack of direct contact from students throughout this project possibly stemmed from a reluctance by students to identify themselves due to the perceived impact of disclosure could cause (Mayall et al., 2015). Students may have preferred to have direct contact and support from other students with the similar lived experience. Therefore, perhaps a 'care champion' could be appointed from the student body rather than from the tutoring team and more focus placed on building peer support networks.

A further aspect for us to consider is to continue the development of understanding of the lived experiences and needs of this group of students (Child & Marvell, 2023). Consideration also needs to be given to the time needed to embed support within the faculty and, therefore, this project needed to be in place for longer to create consistency for students who have indicated a lack of trust with authority. Despite limited

research on the impact of long-term initiatives, students may need to see a long-term commitment by the University to form trust in an initiative.

Tips

There are several points for consideration when developing support provisions, however, all are subject to a variety of limitations, such as resourcing and financial constraints, and must be considered carefully to allow for long-term commitment. The project team have six tips to share with others embarking on enhancing or developing support for care experiences students.

i. **Anonymity**
   Providing anonymous support ensures that students who do not wish to declare still have access to information, advice, and guidance
ii. **Open Access Resources**
   Linked to anonymity is the need to ensure that resources provided are open to all students to allow for autonomous decision-making when accessing support; this may even encourage the removal of stigma associated with having been in care encouraging declarations.
iii. **Co-creation**
   Embedding the student voice in design of all support, co-creating both peer lead and faculty lead initiatives.
iv. **Variety**
   A variety of resources allows for a 'test and learn' approach, enabling evaluation as to which are the most relevant to students within a particular institution, as well as facilitating student choice.
v. **Awareness**
   Underpinning all support needs to be an active and continuous development of awareness and understanding on the needs of this group of students across all teams, leadership, management, academic, and professional services.
vi. **Sustainability**
   Finally, a clear commitment should be made and articulated to support any initiatives as a longer-term endeavour, thus helping to build student trust in the consistency of the support offered.

Discussion Points

- Consider how support can be tailored to meet the needs of varying lived experiences. For example, students experiencing multi-layered barriers to accessing support, perhaps stemming from the intersection of other marginalised groups.
- Consider the potential differing needs of students in a distance learning environment to those in a traditional university. For example, do students want to be part of a community or are they drawn to online study due to the anonymity it provides? What approaches can be adopted to allow for autonomy of choice in how and when interaction occurs with both peers and staff?
- How can new projects be tested and evaluated whilst still providing students with the longer-term commitment and reassurance they require to build trust?

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CHAPTER 10

Navigating the Award Gap of Ethnic Minority Students

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Introduction

In recent years, higher education institutions (HEI) have been recognised as sites of reproduction of social, economic and health inequalities (Zulfiqar & Prasad, 2021). These inequalities have been exacerbated by the increasing presence of wicked problems such as existent and future pandemics, climate emergencies, rising unemployment, poverty (Bapuji et al., 2020) and, more recently, rising living costs. Academics have the duty of counteracting these outcomes, working hard not only to teach different approaches which hopefully will indirectly lead to societal change but also to ensure that educational contexts do not directly reproduce those inequalities in students and staff (Minefee et al., 2018; Nobles et al., 2022).

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Our chapter focuses on university students in both digital and face-to-face environments, specifically on the gap that ethnic minority students experience, as an example of the perpetuation of racial stratification (Espinosa & Mitchell, 2020). The award gap among higher education students has been analysed substantially in face-to-face (Gemmell & Harrison, 2020; Mahmud & Gagnon, 2020; Peterson & Ramsay, 2021), and digital environments (Nguyen et al., 2020; Richardson et al., 2020), yet it has persisted for many years.

The literature recognises the ethnicity award gap as a complex, systemic problem that originates beyond the academic boundaries, and it is reflective of unequal norms and practices within the broader society and evident throughout the learning environment, student experiences and assessment strategies (Bottia et al., 2021; Fyfe et al., 2022; Richardson, 2018). Despite the many studies that highlight the details of the award gap and explore various reasons for its existence, there are only a small number of studies that look at the interventions and mechanisms that could address it (see Arday et al., 2021; Cramer, 2021; Fyfe et al., 2022; Smith, 2017; Rana et al., 2022 for some recent articles). To our knowledge, there is a lack of systematic analysis and assessment of studies that evaluate interventions designed to reduce or eliminate the award gap (Andrews et al., 2023). Furthermore, the existing studies are scattered across different fields of education, making it difficult to conclude which interventions could work, with what dynamics and under what circumstances. Our research addresses this void in the literature by exploring the interventions

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that have been developed so far. The study also investigates the effectiveness of interventions implemented and evaluated within HEI, exploring what works and the mechanisms involved. This is achieved with a systematic literature review carried out to examine interventions developed and implemented in order to address the minoritized ethnic students' award gap in different HEI.

The chapter unfolds as follows. Firstly, a description of the methods for our research is provided. Secondly, in our findings, we present if and how different interventions work (or not) and the mechanisms behind their effectiveness. The chapter concludes by advancing middle-range mechanisms on how HEI interventions for addressing ethnic minority students' award gap work in practice. It also delineates the contours of the scholarship agenda and future interventions in HEI.

Methods

To ensure validity and comprehensiveness in our review, we developed a review protocol following the best practices for systematically reviewing scientific literature (Moher et al., 2009). The search terms were executed in the following databases: Web of Science, Scopus, Education Database, Education Abstracts, Education Research Complete, Educational Research Abstract and Educause Resource Centre. We limited the search to English language articles and excluded books, book chapters, non-peer-reviewed articles and conference papers.

To be included, articles had to meet the following criteria:

- Focusing on interventions to reduce the award and/or performance gap of minoritised ethnic students in HEI;
- Presenting primary data about interventions enacted in HEI;
- Written in English.

All the records retrieved ($n = 9957$) were stored in a shared database through Zotero reference management software. Duplicates were removed, and all the materials identified in the research were evaluated using a two-stage screening process with the inclusion criteria screened against titles and abstracts at the first stage. Studies that by title or abstract might meet our inclusion criteria ($n = 406$) were read in full and further screened for relevance. Fifty-four studies were analysed and included in our paper. Figure 10.1 outlines the entire review process.

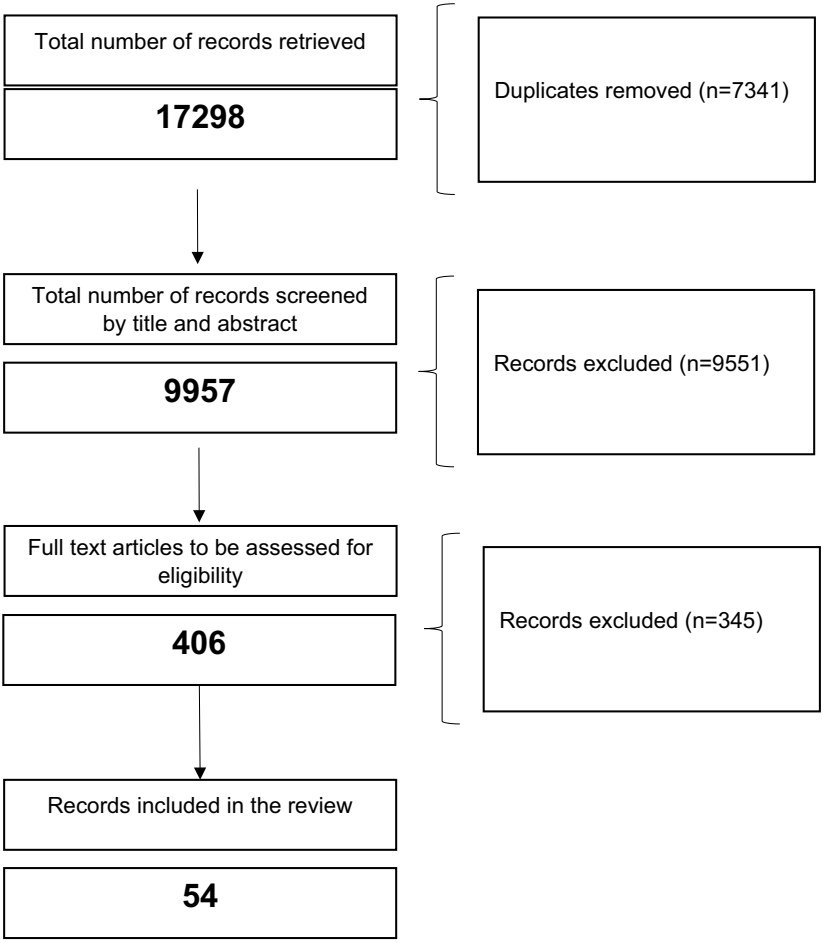

Fig. 10.1 Systematic literature review process

We mined the content of all eligible papers according to the author(s), title, journal, theoretical lens, description of the intervention, mechanisms (when available) and outcomes. Two rounds of coding were undertaken. Firstly, thematic analysis was applied to identify mechanisms and outcomes in each paper (Barnett-Page & Thomas, 2009). Then linked coding (Jackson & Kolla, 2012) was applied to explore how mechanisms

generated outcomes. The research team engaged in a series of iterative discussions during various meetings to thoroughly examine and refine the process of data extraction.

Once data were extracted, the team divided the papers based on the groups of interventions (interventions directed to students, interventions directed to institutions) to conduct the analysis. The aim of this step was to look in detail at each intervention type across disciplines and identify the mechanism behind the intervention along with the outcomes. Finally, the first author regrouped the mechanisms across the different interventions and explored their connections with the outcomes.

Results

After applying inclusion and exclusion criteria, 54 studies were eventually included. Fifty studies were conducted in US universities and four in UK HEI. Most of the interventions were established in health-related disciplines ($n = 15$), STEM disciplines ($n = 19$), psychology ($n = 3$) and social work ($n = 1$). Only two papers focused on initiatives that were implemented specifically in management disciplines, while fourteen papers analysed interventions implemented in several courses at the same time (university-wide). Most papers explored student-related interventions, with only nine looking at interventions that impacted institutional practices and policies. The findings are presented based on these two main categories, focusing on each type of intervention identified.

Interventions Directed to Students

Most papers (46 out of 55) focused on interventions for students as direct beneficiaries, including additional programmes, summer programmes, mentoring programmes, peer-assisted learning sessions, psychological interventions, institutional interventions. Each of them is discussed in turn.

Mix of Additional Programme Activities

Fourteen papers focused on additional programme activities established to provide a wide variety of services covering different areas. The programmes included a wide variety of activities. Some studies focused on a mix of social learning community activities (e.g. Druery & Brooms, 2019; Elks et al., 2018), workshops to improve leadership

skills (e.g. Brown & Anema, 2007; Druery & Brooms, 2019) and coaching/counselling services (Bagnardi & Perkel, 2005; Toven-Lindsey et al., 2015). Other research analysed courses and information to improve the knowledge on how HEI work (Ballen & Mason, 2017; Barlow & Villarejo, 2004). Instead, others focused on providing additional academic content (e.g. Davies et al., 2019; Elks et al., 2018), increasing faculty feedback for students performing under average (Elks et al., 2018), or providing financial needs support (Barlow & Villarejo, 2004; Maton et al., 2012).

Most of the papers explored the outcomes of the interventions, concluding that additional programme activities, such as the one explored above, led to positive outcomes that included the reinforcement of study skills (Bagnardi & Perkel, 2005), improved confidence (Bagnardi & Perkel, 2005; Ovink & Veazey, 2011), better academic grades (e.g. Macke et al., 2019; Moore, 2005), higher retention and completion rate (e.g. Davies et al., 2019; Maton et al., 2012), better student engagement (Druery & Brooms, 2019) and inclusion (Ovink & Veazey, 2011).

Only a few papers focused on the mechanisms that led to the achievement of the outcomes. For example, Bagnardi and Perkel (2005) analysed how the presence of a role model that became both a mentor and a friend led to the creation of a safe space where the students could discuss difficulties and better understand how to navigate the system. Maton et al. (2012), Moore (2005) and Toven-Lindsey et al. (2015) focused on a similar dynamic, exploring the importance of 'comfortable and spaces' for students as a collaborative learning opportunity that increased the sense of engagement which led to better academic performance and higher completion rate. According to Druery and Brooms (2019), the presence of a brotherhood, connection and peer support bonding, alongside developing a culturally validating environment that transmitted a sense of belonging, helped achieve a better experience, developing students' resistance, persistence and engagement. A feeling of altruism and peer support was also identified by Ovink and Veazey (2011), alongside the development of a safe space, as central to developing a sense of confidence, cultural capital and inclusion. The dynamic was implemented through the support to navigate the complexity of an unfamiliar institutional environment and by providing reliable and timely advice.

Summer Programme

Eight papers focused on developing summer programmes to improve the retention and achievement of minoritised ethnic students. They explored summer courses aiming at addressing the transitions between high schools and colleges (e.g. Ackermann, 1991; Johnson, 2016), increasing the knowledge of freshman undergraduate students, and improving career opportunities at the end of the study path (Hamers et al., 2022). The summer programmes analysed involved a wide variety of activities, such as in-depth pre-courses (Ackermann, 1991; Behling et al., 2016), active learning and team-based problem-solving sessions (Ghazzawi et al., 2021; Johnson, 2016), social activities (Ghazzawi et al., 2021; Johnson, 2016), career development seminars (Hamers et al., 2022), research activities (Hamers et al., 2022; Lisberg & Woods, 2018), workshops and seminars about HEI demands and resources (Burgette & Magun-Jackson, 2008).

Most of the papers showed positive outcomes, such as increasing the likelihood of completing the courses (e.g. Lisberg & Woods, 2018; Parnes et al., 2020), improving grades (Behling et al., 2016; Ghazzawi et al., 2021), increasing self-skills and study skills (Burgette & Magun-Jackson, 2008; Johnson, 2016), a growing sense of inclusion (Hamers et al., 2022), engagement with academic material (Ackermann, 1991) and increasing self-confidence (Johnson, 2016).

Some papers also identified the mechanisms behind the achievement of the outcomes. According to Burgette and Magun-Jackson (2008), increasing self-knowledge of students' skills, capabilities and attitudes combined with an improved ability to navigate institutions' landscapes derived by an increasing agency, led to a substantial improvement in the retention of minoritised ethnic students. Similar mechanisms were also highlighted by Ackermann (1991), who showed that transferring control over the future to students meant increased agency and knowledge of their capability, leading to higher student engagement. Instead, Parnes et al. (2020) and Johnson (2016) suggested that normalising the experiences of challenges during college and the importance of reaching out for support in a new and safe space led to positive results in terms of retention and completion rate. Although the majority of findings were favourable, it is noteworthy that Hamers et al. (2022) and Johnson (2016) brought attention to the necessity of advocating for more intricate and substantial changes at higher levels to effectively address the systemic racism entrenched in educational institutions.

Mentoring

Seven papers examined mentoring as a potential intervention to reduce the minoritised ethnic students' award gap. Some of the research focused on a faculty-led mentoring process that aimed at helping students from minoritised ethnic groups to access postgraduate programmes (Chan, 2008; Davis, 2008) or become involved in research experience and careers (Dunbar & O'Connor, 2016; Krawczyk & Claudio, 2017). In other studies, more complex interventions, involving participation in research learning communities, laboratory exercises and professional development workshops, were promoted (Dunbar & O'Connor, 2016; Kendricks et al., 2013).

Most of the studies highlighted positive results, such as increasing students' self-confidence (e.g. Chan, 2008; Davis, 2008), developing students' skills such as critical thinking and interpersonal skills (e.g. Dunbar & O'Connor, 2016), improving engagement with courses (Chan, 2008), achieving retainment (Reig et al., 2018) and increasing academic grades (Kendricks et al., 2013). Some papers went into greater depth to discuss the mechanisms at the heart of the mentoring programme. Chan (2008) highlighted, for example, how mentors favoured access to the academic world, which enabled bridging the cultural shift from the non-academic world to academia, building rapport and closeness and providing the instruments to understand and eventually enter an academic job. This mechanism led to an increasing sense of confidence alongside acquiring practical knowledge and skills. Davis (2008) explored how the mentor became a modelling example for the students and an instrument that demystified academic life, establishing a safe space that provided emotional support to fight fears and facilitating socialisation in professional and personal environments. Development of collaboration, connection and socialisation was also at the heart of the mentoring intervention analysed by Reig et al. (2018), which identified an early involvement in research experience as a way to build a community.

Peer-Assisted Learning Additional Sessions

Eight papers focused on peer-assisted learning interventions, aimed at supporting the academic development of minoritised ethnic students. These interventions were introduced in the form of out-of-class interactive sessions (Arendale, 2014; Fullilove & Treisman, 1990), peer-led workshops (e.g. Born et al., 2002; Drane et al., 2005; Okun et al., 2015) and small group discussion events (McMillon, 1994; Rath et al.,

2007). Some initiatives entailed workshops focused on developing the problem-solving skills of students (Born et al., 2002), using conceptually based problems designed by faculty and mentors (Drane et al., 2005) and discussing issues and solutions faced during classes (Fullilove & Treisman, 1990; Okun et al., 2015).

Positive and substantial results were recorded across the eight papers. For example, better academic grades (e.g. Arendale, 2014; Born et al., 2002), improved retention rates (Drane et al., 2005; Fullilove & Treisman, 1990;), growth in academic engagement (Arendale, 2014), confidence, critical thinking and interpersonal skills (Arendale, 2014) and studying skills (Okun et al., 2015) were reported.

Some of the papers highlighted the dynamics behind the achievement of positive results. In Arendale (2014), framing the peer learning intervention as an integral part of the course instead of a remedial one reduced the stereotype threat, providing a safe space where students could be involved. This helped the students to develop confidence, improve interpersonal skills and enhance their critical thinking skills by establishing new personal and collegial relationships. Similar mechanisms were also identified by Born et al. (2002), where discussions and learning during the workshops helped the students decrease their evaluation apprehension, preparing them to work more productively without becoming overwhelmed by fears of failure. In Drane et al. (2005) the presence of ethnic minority students in more advanced classes of the learning community helped reduce the stereotype threat, increasing the sense of belonging that might have contributed to the integration of students within the student body and reduction of social isolation. In Fullilove and Treisman (1990), workshops incentivised a sense of connection and collaboration based upon valuing success and academic achievement. Students felt the need to work hard to be part of the group.

Psychological Interventions

Six papers analysed psychological interventions to potentially improve minoritised ethnic students' retention rate and award results. The psychological interventions varied from providing students with articles and workshops about brain plasticity or trainable capabilities (Broda et al., 2018; Fink et al., 2018), to showing videos documenting the experiences and challenges of new college students (Patterson Silver Wolf et al., 2021) and asking students to complete reflective exercises about their lives in connection with the course topics (Harackiewicz et al., 2016) or their

values (Jordt et al., 2017; Woolf et al., 2009). Some of the results were identified as significantly positive in terms of improving grades (e.g. Broda et al., 2018; Fink et al., 2018) and increasing retention (Patterson Silver Wolf et al., 2021). Other studies, such as Harackiewicz et al. (2016), showed that reflecting on the connections between the course topics and students' lives benefited the first generation of ethnic minority students, particularly, and increased their engagement.

Four studies reflected upon the mechanisms implemented by the initiatives, exploring how the interventions triggered an increased sense of belonging in different ways. Harackiewicz et al. (2016) suggested that writing about the personal relevance of course material and connecting course material to important personal goals helped the students to stay engaged in their coursework. Students were highly motivated by collective goals, such as helping others, contributing to society or giving back to their families and communities. Therefore, the intervention helped to increase the coherence between the course materials, and the aspirations and collective goals. Woolf et al. (2009) suggested that self-affirmations and sense of belonging might increase positive feelings towards others so that students could relate better to examiners and achieve higher scores. Jordt et al. (2017) and Woolf et al. (2009) suggested that value affirmation and self-affirmation exercises countered the stereotype threat, reinforcing a student's feelings of belonging, integrity and self-worth.

Institutional Skills Centres

One study assessed institutional skills centres interventions for enhancing students' retention and success (van der Sluis et al., 2013). The study focused on the Academic Skills Centres (ASCs) development at a UK university. The centres employed academic advisers who were either staff or trained students recruited from the faculty to address various skills requirements within disciplines. A range of flexible approaches and techniques were used, including face-to-face workshops, and tailored skills sessions related to, for example, academic writing and online resources. In terms of mechanisms implemented, the paper suggested that the flexibility of the scheme, which was able to accommodate the needs of students by creating a safe space in which a proactive attitude and dialogue were incentivised, increased participants' engagement that led to better grades.

Faculty Learning Community

One paper explored the effect of learning communities (faculty, students and student-faculty) in STEM courses in four US universities (Taylor et al., 2008). The learning communities aimed to support students in STEM courses through a flexible approach and education pedagogies enhancement. Although outcomes did not show significant improvement, participating faculty in all four schools felt that the learning community benefited the students, creating a space in which dialogue and proactivity were valued. Particularly, students showed an increasing engagement with course materials while a more general improvement in the quality of education was achieved.

Interventions Directed to Institutions

Among the papers that focused on interventions directed at changing HEI practices, five papers explored the results derived by changing pedagogical approaches in courses delivery, two papers analysed the decolonisation of the curriculum as a potential tool for addressing the awarding gap, and two studies explored faculty development programmes.

Changing Course Delivery

Five papers studied interventions that changed how the courses were delivered (e.g. Bancroft et al., 2020; Fike et al., 2011). The initiatives involved the establishment of group interactions through a flipped learning model (Bancroft et al., 2020), the implementation of small learning communities (Miller et al., 2021) and the use of group work to discuss set problems (Miller-Cotto & Schunn, 2020). Fike et al. (2011) focused on integrating a self-paced learning process through an online course management system complemented by in-class activities, while Kezar and Holcombe (2020) analysed a collaborative process between faculty and student affairs in revising the curriculum content and delivery. Positive results were recorded across the studies, particularly in terms of grade performance (Bancroft et al., 2020; Miller et al., 2021; Miller-Cotto & Schunn, 2020), retention and completion rates (Kezar & Holcombe, 2020; Miller et al., 2021), and improved confidence (Fike et al., 2011; Kezar & Holcombe, 2020).

Four papers also focused on the dynamics behind the initiatives. In Bancroft et al. (2020), the integration of a flipped model approach, which foresaw an active and constructive learning process, therefore

increasing agency, triggered an increasing belief that ability can be developed through hard work learning and seeking input from others. In Miller et al. (2021) and Miller-Cotto and Schunn (2020), the implementation of a safe group learning environment inside the classes helped to establish an active learning approach where trust and bonding among peers (without a difference based on the background of students) led to the belief that ability and learning can be developed through hard work and collaboration. Development of collaboration in designing and producing the courses was also at the heart of the initiative explored by Kezar and Holcombe (2020) that focused on the importance of increasing the sense of belonging of students to reduce the alienation feeling. Fike et al. (2011) instead suggested that implementing a self-paced method was a valuable means for underprepared students to 'catch up' with those who demonstrated better academic performance at the baseline. Giving students agency in how to self-remediate the areas of deficiency led to increased confidence.

Decolonising the Curriculum

Two papers presented initiatives focusing on decolonising study curriculum (de Sousa et al., 2021; Kelly & Patrice, 2019). Even though the paper did not focus much on the outcomes of the intervention, De Sousa et al. (2021) reflected upon an intervention in which ethnic minority students were employed to review the learning materials of courses. The authors suggested that a broader reflection on the course material should be included; the Western Eurocentric perspective should be discussed while these changes should be done empathetically with all the staff involved, aiming at triggering a sense of belonging. Kelly and Patrice (2019) used a quasi-experimental design to understand, if presenting racially diverse content in images, videos and examples, affected the final grade. Results of the study supported the hypothesis that the approach increased African American student performance compared to African American peers who undertook the same course without racial manipulation.

Faculty Development Programme

Two papers reflected on the impact of interventions developed to improve faculties' knowledge about diversity and inclusive teaching through two different pedagogical approaches (Gillian-Daniel & Kraemer, 2015; Schmid et al., 2016). Gillian-Daniel and Kraemer (2015) focused on

an intervention aimed at coproducing solutions by establishing learning communities among faculty staff, administrative staff and students that used diversity as an asset instead of a deficiency. Schmid et al. (2016) analysed a course developed for teaching staff to establish learner-centred and inclusive teaching practices. Both studies identified that the interventions supported the quality of the teaching, which led to a more positive teaching environment, which improved grade performance and retention rate (Gillian-Daniel & Kraemer, 2015), confidence and critical skills (Schmid et al., 2016). In terms of mechanisms, Gillian-Daniel & Kramer (2015) identified the opportunity of bringing together different perspectives (students, institutional, academic) in a safe space to increase knowledge across the higher education institution communities and improve the sense of self-efficacy inside services and teaching provided. Having reviewed the literature, we now aim at understanding what we can learn from these results.

Impact and Forward Facing

In this chapter, we explore whether and how interventions developed by HEI to reduce the ethnic minorities award gap were effective, aiming at informing what kind of initiatives and dynamics should be implemented by HEI to avoid the reproduction of inequalities and improve students' experience. Our work builds upon the education literature on the award gap, which is still mostly fragmented and mainly focuses on the causes instead of solutions (Fyfe et al., 2022). We also contribute to calls for intellectual activism to reduce the risks of reproducing existing inequalities (Contu, 2020; Zulfiqar & Prasad, 2021) and focus on the mechanisms of changes that are considered fundamental to explore the success of an approach (Andrews et al., 2023).

All studies included in our review analysed interventions developed in the USA and the UK. The complete lack of papers analysing interventions promoted in other countries is unexpected, although including only English written papers might have affected this finding. This is even more surprising if we consider the increasing ethnic diversity in European populations after recent migrations (Baglioni & Calo, 2023) and the cultural role that indigenous populations have in countries such as Australia and Canada (Dang et al., 2016; Mallapaty, 2022). This finding might be explained by the USA and UK's long-standing traditions of being multicultural countries, the social movement pressure of Black Lives

Matter in recent years (Issar, 2021) and the policy pressures of promoting equality and equity in terms of educational outcomes and professional representations (Closing the Gap, 2019).

The high number of studies analysing interventions in a broader range of health disciplines is in line with a need for increasing representations of medical professionals to serve vulnerable populations (Salsberg et al., 2021). For example, only two papers that focused on interventions were identified from management and business schools (de Sousa et al., 2021; Miller-Cotto & Schunn, 2020) which are significantly fewer compared to other disciplines. This might suggest a more recent implementation of (as yet unreported on) interventions in business schools, or the lack of evaluation and publication of the interventions implemented. Most papers analysed initiatives directed at students, focusing on addressing individual barriers and promoting what has been named as remedial programmes. Only eight papers explored initiatives to change course contents, pedagogical approach or institutional culture, therefore aiming at addressing the systemic level issues. This confirms previous research that highlights that most of the time, the causes of inequalities are perceived as existing at an individual micro-level without critically taking into consideration systemic and ideological HEI contexts (Bottia et al., 2021; Fyfe et al., 2022). Only one paper analysed interventions undertaken in a digital or online environment, while most of the interventions were conducted in traditional HEI.

Despite the different interventions and contexts, most studies included in the review highlighted a positive impact on improving grades and increasing retention and completion rates of ethnic minority students, leading eventually to bridging the award gap. Some studies suggested improvement of skills, such as increasing knowledge and awareness of studying skills (e.g. Bagnardi & Perkel, 2005; Dunbar & O'Connor, 2016), making better use of interpersonal capabilities (e.g. Chan, 2008; Davis, 2008) and advancing critical thinking skills (Reig et al., 2018; Schmid et al., 2016). Other research focused on students' well-being outcomes, such as increasing self-confidence (e.g. Fike et al., 2011; Johnson, 2016), improving engagement (e.g. Ackermann, 1991; Arendale, 2014) and improving sense of inclusion (Hamers et al., 2022).

What We Can Learn from the Literature

The results confirm the literature which suggests that, in order to reduce the award gap, interventions need to offer a well-rounded academic,

practical and social experience that will assist students in navigating the challenges of university and equipping them for future success (Arday et al., 2021; Cramer, 2021; Richardson et al., 2020).

Exploring the high-level mechanisms triggered across the interventions is even more critical regarding the contribution to practitioners. In our findings, we found four higher-level mechanisms that have been implemented across most of the initiatives that detailed dynamics and that, according to the findings, led to the outcomes detailed above.

First, the importance of a safe and comfortable space (e.g. Delano-Oriaran & Parks, 2015; Ovink & Veazey, 2011; Toven et al., 2015) identified as a culturally and validating space in which the different identities are accepted was highlighted across most intervention typologies as particularly important for students and faculties. Such spaces were identified as those where the challenges during college were normalised, fear was discussed, tailored responses were generated, and collaboration was implemented. A safe space was also important for staff to reflect upon their courses, better understand their teaching and practices and create knowledge synergies. In terms of practice, HEI should then understand how they can develop these spaces, either online or in person, for their students and staff, in which a collaborative environment is created, identity and challenges are respected and valorised, and fear and stereotypes are discussed. Those spaces should be co-designed and co-organised to be developed as a collaboration tool from their inception. Future studies should better explore the meaning of a safe space for students coming from different backgrounds, exploring how it might work differently in digital and physical contexts and how it should be developed based upon the different student characteristics and avoiding the risk of supporting the one-size-fits-all approach. More studies should be conducted to explore how promoting a safe space for staff might effectively lead to better and more inclusive teaching practices, exchange of knowledge and development of more inclusive courses.

Second, closely linked with the safe space dynamics, collaboration, connection and socialisation development were often identified as fundamental factors across most intervention types (Born et al., 2002; Druery & Brooms, 2019; Reig et al., 2018). Through the development of social capital and bonding, among peers or with mentors, academic life was demystified, and emotional support was provided, building rapport and closeness that decreased students' apprehension and fears. In terms of practice recommendations, business and law schools should invest

in initiatives that support collaboration and bonding, overcoming the neoliberal approaches that often espouse a sense of competition among students (Fotaki & Prasad, 2015) and providing online and physical spaces and facilitation for informal socialisation and connection inside and outside the courses, both among students and between students and staff. More studies should be conducted exploring what kind of connections lead to addressing the awarding gap and understanding the contextual characteristics of the initiative and people involved that might lead to powerful synergies. In particular, multi-method analysis based upon social network analysis alongside qualitative exploration might be helpful to explore the key characteristics of the people acting as brokers in facilitating the collaborative environment and the contextual characteristics that favour that environment.

Third, a sense of belonging and alignment with the institutions was identified as important to achieve favourable outcomes (Kezar & Holcombe, 2020; Woolf et al., 2009). Papers identified that ethnic minority students should feel that there is an alignment between the courses they do and their life and values, alongside the need to be able to navigate the institutions' landscapes in terms of cultural identity. Regarding practice recommendations, business and law schools should explore how to align their mission, vision and strategies to their wide variety of students, valuing their diversity and implementing processes with which students can identify their values. Further studies should focus on understanding the perceptions of belonging that minoritised ethnic students have about their courses and the institutions where they study, aiming to understand if and where there is a potential disconnection between them and how to potentially address any disconnections.

Fourth, the increasing agency and control of minoritised ethnic students over their future was identified, and it connected to the sense of belonging explored above (e.g. Bancroft et al., 2020; Burgette & Magnum-Jackson, 2008). Interventions developed in the form of additional programme activities and changing course delivery supported an increasing transfer of control to students over their futures. Business and law schools should better involve ethnic minority students from different backgrounds in designing, assessing and evaluating courses, increasing their role across the entire process, by encouraging and supporting academics to implement students' feedback, ideas and work. Further studies should focus on understanding and exploring how different pedagogical approaches (both digital or online and face-to-face teaching) that

can be implemented in courses might increase the agency of students over the course design, materials, assessment and activities that universities promote.

The four mechanisms highlighted above come with resource implications for HEI, particularly if the aim is to counter the systemic cultural reproduction of racial inequalities. Indeed, our findings clearly showed how isolated interventions are not enough to deal with systemic racism within HEI and society. Therefore, universities should invest in holistic interventions that critically address systemic and ideological higher education contexts both in terms of faculties and courses. This should take place alongside supporting initiatives directed to students, recognising the difference between surface-level attempts at equity and those that have profound and lasting impacts against systemic and ideological oppression (Hamers et al., 2022). Long-term complex strategies, which include a spectrum of interventions (and their evaluations), should be at the core of the university plans to implement change. The distinction between surface-level equity attempts and those with profound, lasting impacts against systemic oppression is vital, as highlighted by Hamers et al. (2022). Universities are urged to integrate these insights into their change programmes, fostering a commitment to long-term, complex approaches that effectively combat systemic racism within higher education and society.

Tips

Drawing on the insights from the literature review, here are five tips for university educators and administrators:

- Develop safe and inclusive spaces: Cultivate safe, comfortable and culturally validating spaces that encourage open dialogue on identity and challenges, fostering an environment where both students and staff can thrive.
- Promote collaboration over competition: Implement initiatives that enhance socialisation, connection, and collaboration among students and staff, actively working to counteract the competitive dynamics often found in business and law schools.
- Align institutional goals with student diversity: Ensure that the institution's mission, vision, and strategies reflect and respect the diverse

backgrounds and values of the student body to foster a stronger sense of belonging and alignment.
- Empower students in educational design: Involve students, particularly those from minoritised ethnic groups, in the design, assessment and evaluation of courses to increase their control over their educational experiences.
- Commit to systemic change: Invest in comprehensive, long-term strategies to address systemic racial inequalities in higher education, recognising the need for deep, lasting interventions rather than surface-level equity attempts.

Discussion Points

- How can universities effectively create and manage 'safe spaces' that accommodate the diverse identities and needs of students and staff, both in physical and digital environments?
- What strategies can be implemented to foster a culture of collaboration over competition, particularly in disciplines known for competitive dynamics, such as business and law?
- In what ways can institutions ensure their mission, vision and educational strategies align with the diverse cultural identities and values of their students to foster a deeper sense of belonging?
- How can we enhance the agency of minoritised ethnic students in shaping their educational experiences and outcomes at universities?

Further Reading

For those interested in delving deeper into the existing inequalities in higher education institutions, Contu (2020) and Zulfiqar and Prasad (2021) offer a thorough overview and research agenda on the subject. Alternatively, if one seeks insights into interventions and mechanisms to address the award gap among ethnic minority students, works by Fyfe et al. (2022), Andrews et al. (2023), and the reports from Closing the Gap (2019, 2022) provide strategies applicable across various contexts. In conclusion, each of the papers reviewed here could be selected for further exploration, and the authors are happy to share the database for additional analysis.

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CHAPTER 11

Designing Digital Law Clinics for Student Success

Emma Curryer and Carol Edwards

Introduction

This chapter provides insight into the design of law clinics in a digital environment for clinical legal education, with a focus on a digital criminal justice clinic developed at The Open University's Law School within the Open Justice Centre (OJC). It emphasises the incorporation of social justice, professional and employability skills into the curriculum, exploring their significance in learning design and how they are perceived by students through a research project involving the Criminal Justice Clinic (CJC) and its forerunner, the Criminal Appeals Project (CAP). The research examines students' perspectives on employability skills garnered through their participation in a pro bono digital criminal appeals clinic, suggesting that the findings and methodologies could be adaptable to

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both face-to-face and other digital law clinic settings due to the universal applicability of the underlying principles.

Organised into several sections, the chapter begins with an overview of The Open University (OU), OJC, CAP, and CJC, including the demographics of the OU student body and the formation and objectives of the CJC, especially concerning employability skills. Subsequent sections examine relevant literature, detail a two-year employability research project conducted within the CJC—highlighting methodology, critical analysis, and implications—and conclude with future directions and discussion points to engage the reader further.

Background

The Open University is a UK-based university whose enduring mission is to be 'open to people, places, methods and ideas' (The Open University, n.d.-a). The OU's student community is diverse, with 70% of OU students combining their studies with either full- or part-time employment, 33% of students having no higher qualifications than one A-level when they commenced their OU studies, and 37,118 students declaring a disability in 2021/22 (The Open University, n.d.-b). Such diversity brings opportunities and challenges when designing law clinics and thinking about embedding skills.

The Open University Law School (OULS) celebrated its 25th anniversary in 2023, and with approximately 9,000 students enrolled (The Open University, n.d.-c) is believed to be the largest law school in Europe. Its vision—'To make outstanding legal education accessible to all who pursue it' (The Open University, n.d.-c)—is demonstrated in the clinical legal education provided as part of its undergraduate law degree through the OJC since the Centre's formation in 2016. The OJC comprises various legal education clinics covering civil law, family law, and criminal justice. All clinics are run digitally online and have clients who rely on the students, and their supervisors, for advice. In addition, the OJC runs other projects that do not have clients but are of equal importance; for example, the policy project looks at topical debates and feeds into wider legal consultations; the mediation project teaches students the skills they need for successful legal mediation; the international law and digital justice projects; and previous projects involving Streetlaw and work in prisons. Some of these clinics run as extra-curricular activities for students

while others can be taken as part of a law degree and attract academic credit.

'Justice in Action' is a module that currently runs at level three, the equivalent to level 6 of the Framework for Higher Education Qualifications (FHEQ). It is an optional module that is split into two distinct sections, albeit they are connected in some ways as students must undertake the first part to understand the second. The first part of the module teaches students professional practice skills and centres around social justice, professional identity, and ethics. It involves students studying module materials digitally, attending tutorials that are held online, and working through activities to gain knowledge and skills. Students work collaboratively in teams and develop skills in writing and research as well as how to interview effectively and provide legal advice. The module is assessed through tutor-marked assessments, much of which is in relation to reflective learning. The second part of the module is different to all others taught at the OU as it mimics what happens in legal practice. Here, the students are assigned to one of the clinics or projects and use the knowledge and skills acquired throughout the law degree and the first part of the module to provide a report or advice in the area they are assigned to. All of these projects and clinics are run digitally; there are no physical clinics situated on campus or any other site.

At the point students undertake this module they will usually have completed the main compulsory law modules covering criminal, contract, tort, public, trusts, European Union, and land law. Students therefore already have broad substantive legal knowledge, but the 'Justice in Action' module puts that knowledge into practice, thereby allowing students to develop key employability skills such as letter and report writing, note-taking, verbal presentation skills, legal research skills, and organisational and chairing skills.

Overview of the Criminal Justice Clinic (CJC)

The CJC sits within the OJC and is one of the projects offered in the 'Justice in Action' module. Initially, it was formed as a pilot project offered to students as an extra-curricular opportunity. Shortlisted for the LawWorks and Attorney General Student Pro Bono Awards in 2023 in the category 'Best New Pro Bono Activity', the CJC is an innovative digital criminal appeals clinic that is run wholly online. CJC students research and advise

on live criminal cases under the direct supervision of a practising solicitor. To take part in the CJC, students must have successfully completed the level 1 (FHEQ level 4) criminal law module and the first part of 'Justice in Action'. While it is not directly credit-bearing, the CJC is located within a law module and as such the experience obtained from the clinic contributes to the grading through reflective activities that students engage with in assessments.

The CJC is led by a practising solicitor and academic and is partnered with a criminal practice which provides criminal appeal casework for students to work on. Students review the materials in a real case where the convicted person (the client) is serving a long prison sentence often for crimes such as murder, manslaughter, and serious assault, and where the client will be protesting their innocence or feels that their sentence is excessive. Students working on the case will need to ascertain whether there are grounds to refer the case to the Criminal Cases Review Commission (CCRC) because the conviction is unsafe, or the sentence is manifestly excessive. This investigation requires detailed reading of papers and undertaking research, often in the context of sensitive and emotive cases. Students can initially feel overwhelmed with the volume of case material (sometimes running into thousands of pages) and the weight of being the client's last chance to be heard. In addition, the nature of the cases and the possibility of a failure in the criminal justice system can cause students to worry and the possibility of vicarious trauma is also a risk (Curryer & Mawdsley, 2024).

The CJC runs for around 20 weeks in an academic year. Before students are allowed to access any case papers, they are required to sign a confidentiality agreement and complete refresher training on criminal law and evidence. They then participate in training on criminal appeals and vicarious trauma as well as learn how to use the digital case management system. Students work collaboratively in groups of seven to carry out research using digital platforms, including the vast resources held, or subscribed to, by the library. Collaboration is really important to the success of the CJC, both for the development of professional skills and to reflect what happens in legal practice, and training in this skill is incorporated from the start of the students' time in clinic. Students are required to organise their own meetings and agree their own roles within their team, with the aim of collaboration quickly becoming the norm. One student noted: 'after some excellent training, within a couple of weeks, we were working remotely but collaboratively to establish the knowledge

and intent of a defendant convicted under the doctrine of joint enterprise' (Der Gregorian et al., 2022).

In the main, undergraduate legal education in England and Wales concentrates on teaching substantive law but does not fully equip students with all the knowledge and skills needed for a future in legal practice. However, the CJC supports the development of a student's employability skills while encouraging them to think reflectively about the role of a legal professional. In effect, it brings legal practice into the law curriculum, allowing students to be mentored by legal practitioners as well as academic professionals. The clinic also offers the opportunity for alumni to work on a pro bono basis as case workers thereby developing their employability skills while supporting student learning.

When setting up the CJC, the project lead gave a lot of thought to what meetings would be needed and why, given the aims of ensuring confidentiality, group cohesion, and individual participation. Due to the nature of the work, weekly supervision meetings are held digitally in Microsoft Teams with a supervising solicitor and case worker, and students are required to use a camera and microphone. The meetings are held for a number of purposes:

- To share knowledge and skills in a secure environment and promote peer-to-peer review and assistance while still allowing for supervision and professional support, leading to strong connections within the student team.
- To make sure that students understand what is required of them and to allow them to negotiate points where needed.
- To maintain confidentiality in an online environment by requiring all students to attend supervision meetings on camera and talk on a microphone.
- To allow for collaboration with legal practitioners and to share ideas on good practice in law.
- And to allow for equality of opportunity for learners, engage in collaboration, and showcase the work that all students do.

Designing and Creating the Criminal Justice Clinic

Prior to establishing the CJC, the OJC had an agreement with an external provider for students to participate in assisting with criminal appeals casework during their studies on the module. This required a supervisor employed by the OU to ensure that students could cope with the work and provide solutions to improve students' skills. However, it became clear that although the provision was good, it was only provided over a 12-week period and did not fit with the schedule of the 'Justice in Action' module. Students struggled with the basic professional skills required that they had not been taught in the law degree. Over a period of three years new elements were introduced to scaffold learning for students taking part, including the use of a written policy project that allowed students to practice their research and written skills before starting the main project. Students that participated in the written policy document reported that they benefitted from earlier collaboration and acquisition of learning research and writing skills before working on complicated criminal appeals work. However, research and reflective practice showed a longer-term solution was needed. Using an outside provider was restricting the project so that it could not be adapted to suit the diverse range of students at the OU. The need to conform to standard university methods was not providing students with sufficient support to get the most out of their involvement in the project. As a result, the option of setting up and running an in-house criminal justice clinic that provided better teaching and outcomes for our students was pursued.

It has been argued that clinics provide an opportunity to showcase the development of professional skills to future employers (Blandy, 2019), with Gilbert (2022) claiming that clinical legal education can be an engine of social justice by transforming student futures through the acquisition of professional behaviours. Given the diversity of students studying at the OU there was a need for a suitable method of teaching skills in a digital setting within the 'Justice in Action' module. Other issues such as student engagement and compulsory collaboration proved to be problematic. Student feedback demonstrated a need for a different pedagogical approach more consistent with the OU ethos of social justice and its mission to be open 'to people, places, methods, and ideas' (The Open University, n.d.-a).

Clinical legal education is a form of experiential learning (Dewey, 1938), which reduces the gap that can be present between formal taught

education and what is expected in practice at work. By its nature, clinical legal education is also reflective and at its core lends itself to self-regulated learning (Yeatman & Hewitt, 2021). Nicol and Macfarlane-Dick (2006) created a framework of seven principles for effective feedback including clarifying what good performance is, facilitating self-assessment and reflection in learning, delivering high-quality information to students about their learning, encouraging teacher and peer dialogue, encouraging motivational beliefs and self-esteem, providing opportunities to close the gap between current and desired performance, and providing information to teachers to shape teaching.

These seven principles have been incorporated into the design of the CJC where feedback does not follow a set formula, is not solely based on formal written responses, and tends to be spontaneous around conversations that take place in supervision meetings and training. While students receive written feedback on a draft advice and research note completed by the end of their time in the CJC, most feedback centres around verbal comments. Given the nature of the work, the advice to the client and the research note are drafted and re-drafted several times before final submission to the supervising solicitor and onward transmission to the client. Students peer review these drafts before they are seen by the supervising solicitor. For students, the process of an informal method of communication is key as reflection is a continuous process and helps with developing employability skills including collaboration and team working that are also needed within the small teams. Students' reflection on each other's work in a positive and supportive environment enhances team cohesion, which can clearly be seen in the reflective blogs that have been published on the Open Justice website. This approach draws on the work of Yeatman and Hewitt (2021) who recommended that a series of conversations together with peer review is best practice in CLE.

Another method of design that has really benefitted the CJC is built on the idea of assessment not evaluating students' work within the CJC per se. 'Justice in Action' has a number of assessments that are marked by tutors. Those assessments consider the *practical and professional skills* that are needed in pro bono work and students are not graded for the work that they complete within the CJC. This is very different from other law modules as it is more reflective of what happens in professional practice. Building on the pedagogy of Nicol and Macfarlane-Dick (2006) who found that receiving a mark can be demoralising, it was decided that the CJC would promote a nurturing and mentoring approach to feedback. In

essence this means that students are not in competition with one another and perhaps more importantly, do not perceive that they are in competition with one another, resulting in a more supportive environment and a stronger cohesion and collaboration in a group context. It also takes away the personal feeling of feedback that the student may have. Formative feedback is spontaneous, centring around professional skills and writing in a collaborative manner, and is viewed constructively by students because of its professional nature.

Literature Review

In designing and creating the CJC, it was important to establish what had worked in other higher education providers and, therefore, a brief literature review was completed that has now been updated for this chapter. The review considers two distinct areas: firstly, whether there was any research into the effectiveness of digital criminal appeals clinics in higher education in England and Wales; and, secondly, whether employability skills were developed by participation in pro bono work completed by law students in higher education.

In relation to the first area, there appeared to be no research completed into other higher education digital criminal appeals clinics in England and Wales. There were digital criminal appeals clinics but not within a university setting, and there were criminal appeals clinics or innocence projects but not within a digital setting, for example, the Innocence Project London at the University of Greenwich (Hewitt, 2018). There were also digital legal clinics in universities, but they did not cover criminal appeals (Dunn et al., 2020). Therefore, the search was widened to include face-to-face criminal appeals and innocence projects outside England and Wales and digital legal clinics in universities that did not cover criminal appeals, because the pedagogy and design of those clinics might transcend geographical and legal subject boundaries.

Hewitt (2018) discusses pedagogy in relation to experiential learning in clinical legal education with an innocence project that is run face-to-face in a traditional brick university. That project considers wrongful convictions where individuals are maintaining their innocence and have already been through the criminal appeals system so has a basis very similar to the CJC. Despite it not being in a digital setting, some of the observations made resonated with the CJC that was to be set up at the

OU, such as the need for students to learn by experience and the application of David Kolb's cyclical learning model being central to that. Kolb identified the need to acknowledge the process of learning rather than the outcome and noted that 'Ideas are not fixed and immutable elements of thought but are formed and re-formed through experience' (Kolb, 2014, p. 10). This differs from the more formal learning that takes place in a traditional taught law degree and is reflective of the learning process in the CJC. Hewitt, in discussing her experience of running a face-to-face innocence project, takes this a step further by noting that learning not only takes place through the experience of the student but also in response to workplace issues such as working to deadlines, and drafting of appropriate documentation (Hewitt, 2018, p. 5). Even though there was a difference in the method of delivery, these principles were adapted and applied in the creation and design of the CJC.

Student reflection on participating in an internship with the Bridge of Hope Innocence Initiative, a face-to-face innocence project in Australia, is discussed by Stratton et al., (2023) and considers the students' views of their development of employability skills for criminology and justice degree students together with career path decision-making. After analysing research carried out with around 100 students' reflective pieces who participated in the initiative, the authors conclude that such constructive experience 'can build student capacity towards post-graduate employment following criminal justice and other trajectories' (Stratton, 2023, p. 14).

There is limited literature in relation to digital legal clinics but the benefits, together with the problems, associated with creating and running projects within digital clinical legal education in the OJC at the OU are aptly described as being 'fundamentally positive' and leading to high pass and completion rates (McFaul et al., 2020). Written in 2020 after the advent of COVID-19, McFaul et al. (2020) discuss facilitation of distance learning through digital technology, including the need for clinical legal education to be brought online due to the pandemic. The authors note challenges and describe three key themes that need to be considered: collaboration, quality, and congruence. They argue that overcoming working relationships, investment in suitable technologies, and relationships with external partners is key to success. This approach has been pivotal to the design of the CJC where a partnership was formed with an external partner and digital technologies in the form of a case management system, Microsoft Teams, and collaboration spaces are used.

Not all experiences of digital clinical legal education appear to be positive. As part of a small research project, van Dorresteijn et al. (2023) interviewed seventeen teachers in Holland who were involved in experiential legal education during the pandemic. This research is different to the experience of McFaul et al. (2020) who worked in an educational environment which was digital by default and by design and had time to plan and prepare for the digital clinics described by them. Van Dorresteijn's teachers had little time to research pedagogy or experiment with ideas for digital learning before having to move away from face-to-face teaching due to the pandemic. In their analysis of this research, the authors found that teachers felt that activities in relation to the acquisition of knowledge were the easiest to teach digitally while those that promoted association with the profession were the most difficult. They note that teachers 'struggled to facilitate life-like online learning experiences' and identify when students needed support, and the degree of learning depended on the 'student's own level of autonomy' (van Dorresteijn et al., 2023, p. 14). While this research shows difficulties with digital teaching, experience from the CJC confirms that, with planning and resources, they can be overcome.

The second area of the literature review showed some research into what employability skills students could obtain from working in clinical legal education. However, once again, reported studies were limited to face-to-face clinics or digital clinics that did not include criminal appeals. Cantatore (2018), in Australia, discusses the link between law clinics and the employability skills gained by those students that take part in them. Cantatore relies on a pilot project involving a small survey conducted with students before and after they took part in four law clinics, including a criminal law clinic, although none of these clinics were digital clinics. This survey used the Graduate Employability Indicators to decide on employability skills to consider. Participation in the clinics did not lead to any academic credit. The research centred around students' perceptions of their graduate skills by comparing those students that took part in the pro bono law clinic as against a control group that did not. Findings showed a 16% increase in the perceived capabilities of graduates in a commercial law clinic and a 13% increase in students' perception of their own competency after participation for a semester in a pro bono clinic as opposed to a control group result of 2.7% increase in graduate skills. Cantatore's research was only a pilot study, but important nonetheless as

there is limited research still in this field. It suggests that employability skills can be gained from participation in clinical legal education.

In her further study in the same area, Cantatore (2020) used quantitative and qualitative data to survey law clinic students and those results were used to compare outcomes for students in Australia, South Africa, and Chile. Again, surveys were given before and after students took part in face-to-face pro bono clinics. There were only 27 participants, so the data is limited, but overall they demonstrate an increase in graduate skills in all geographical locations with an average increase of 22% in Australian graduate skills during the semester, including the largest of 44% in knowledge and industry awareness and the lowest of 11% in teamwork. In South Africa, these figures were raised to a 30% average increase in graduate skills for the same period and, in Chile, an average increase of 71%. Cantatore et al. account for some of the difference in terms of the area of law being used and the difference in social and economic environments in which the clinics operate (Cantatore et al., 2021, p. 334).

Evaluation of the CJC

From 2020 to 2022 a pilot research project was run within the CAP and CJC. Students assessed the development of their employability skills from the time they started in the CAP/CJC until the time they left. Analysis of student responses demonstrated that there was a change in their perception of the skills that were needed in professional practice by the end of their time in the clinics. At the beginning of their time in the CJC, students anticipated teamwork, time management, research, and analytical skills would be needed in the clinic. By the end, students felt that written and verbal communications skills, together with time management and collaboration were most needed before entering professional legal work.

Method

The research project was designed to show whether or not students were of the opinion that they developed employability skills during their time in clinical legal education with the OU, as well as what employability skills students thought they would need upon entering legal practice. The pilot research was developed as a quantitative study, partly because of the number of students involved but also to provide an overall sense of the student experience rather than in-depth qualitative exploration through

interviews and focus groups. The number of students enrolled in the CAP or CJC at the relevant time was 113, although not all of those students were eligible to take part in the study due to OU rules on research. There were two questionnaires, one completed before the students participated in the CAP and CJC and the other completed at the end of their time in the clinics.

The first questionnaire asked about students' expectations and concerns before taking part and asked them to rate their experience and competence in various legal professional practice skills areas. The second questionnaire asked students what they found most challenging, and they re-rated their competence identifying any improvement in their skills. The list of skills was the same for both questionnaires, with approximately five months between completion of the questionnaires. The necessary approvals were granted by the OU, including ethics, and students were required to sign a consent form prior to completion of both questionnaires. Questionnaires were completed anonymously on a digital survey platform as it was the most secure and convenient method for the researchers and students and allowed for straightforward analysis of the data. In questionnaire one, students were asked what they thought were the three most important employability skills for work in legal practice. They were also asked for the three most important skills they would need for working in the CAP/CJC. Questionnaire two returned to the same skills but from the perspective that they had now completed the CJC/CAP.

For the purposes of this study, employability skills were defined as skills that are required by practitioners working within the legal profession. These were broken down into themes: written, verbal, research, collaboration, negotiation, time management, and confidentiality. The themes then had a list of employability skills that were within that theme. With each theme students were asked to rate their experience before and after their work in the clinic. Students rated their experience from one, the lowest, to five, the highest, against a set list and then rated their competence for the same themes separately. The skills are set out in Table 11.1.

The level of response was limited—26 students answered the first questionnaire and only six answered the second questionnaire—and this means the research comes with various caveats. Due to anonymity, there is no way we can tell whether the six who completed the second questionnaire also completed the first one. Lower response rates to the second questionnaire may be because it was completed after the project and their studies

Table 11.1 List of employability skills

Written skills	Letter writing
	Report writing
	Advice writing
	Professional emails
	Note-taking
	Minute-taking
Verbal skills	Presentation skills
	Contributions at meetings
	Asking questions to gain information
Research skills	Using legal databases for research
	Accessing news items
	Accessing relevant articles
	Working with statutes to provide clear advice and guidance
	Working with cases to provide clear advice and guidance
Collaboration skills	Listening to others
	Responding constructively to ideas
	Presenting ideas
	Setting up and organising a meeting
	Acting as a mediator
	Acting as a chair
	Minute-taking
	Setting an agenda
Negotiation skills	Listening
	Rephrasing
	Respecting others
	The ability to compromise
	Being confident in your own research to consolidate an argument
	Dividing tasks fairly between the group
	Time management skills
	Negotiating allocation of workload to avoid over commitment
Confidentiality skills	The ability to keep work confidential
	Be able to keep the project discrete/isolated from the other areas of your life (i.e. not discuss work in the clinic with family and friends)
	Do all work in on the case management system allocated in real-time online

on that module ended, and some students had completed their degree. The second questionnaire was requested just before an assessment was due and in the second year another research project was also taking place. Students tended to view that second research project as more important

because it involved training on vicarious trauma, viewed by students as an innovative idea.

The skill that students felt they made most progress in was research skills and here they felt that they had improved in all areas. Research required within the CAP/CJC is much more detailed than perhaps needed for other areas in the law degree. Further, it is specific to criminal appeals so involves much more use of specialist practitioner resources and case law than they might have used before. The second main area of progress was collaborative working, where they felt they had improved in listening to others, responding constructively to ideas, presenting ideas, and acting as a mediator. In all other skills in this category, they felt they had remained the same. Other themes all showed some progress but only in certain areas. The main progress that students felt they made in written skills was with report writing, advice writing, note-taking, and minute-taking. In verbal skills the most progress was made in asking questions to gain information. The main progress that students felt they made in terms of confidentiality was developing the ability to keep work confidential and do all the work on a case management system. This is not surprising as students had not usually worked in the legal profession before they took part in the clinics and may not have had to keep work confidential or work on a live case management system.

While it was difficult to come to specific conclusions in relation to the open-ended questions, it was possible to place the results into some common themes. The open-ended questions included identification of the three most important employability skills that were obtained when working in the CJC. Students felt they made most improvement in communication, team working and collaboration, and research. Although the data sample is limited, it is possible to see emerging themes that show students believed they progressed in certain areas and those are perhaps no surprise given the nature of the tasks the students were participating in.

Discussion

What conclusions can be drawn from this research? Before considering the individual areas explored with students, it is important to remember the nature of OU students. The OU population is diverse in terms of age, work, prior education and qualifications, disability, and social and economic profiles. Students tend to break the mould of a 'typical' student,

if one even exists. Therefore, it was important for the researchers to ask about experience as well as skill set. It is unknown how important these factors may be for the results of the research but should be borne in mind when considering the design of a digital clinic. While the FLC students took part during their degree, the CJC was a pilot project in the first year of the research and that may have impacted on students because it was extra-curricular, and generally students tended to be time poor and might have perceived they did not have time to take part in the research. On reflection, it might have been better to have applied for funding to arrange to interview a selection of students individually or arrange for focus groups to discuss their perspectives on employability skills in the clinics.

The research in the first year informed decisions about how the CJC could be enhanced in terms of employability skills and alterations were put in place for the second year. This included the introduction of a policy project prior to commencement in the CJC, which was designed to enhance students' writing skills, particularly in relation to report writing and note-taking, as well as research skills. The aim was to enhance students' abilities in these areas so that they could adapt to the work in the CJC more effectively. Templates for advice and letters were introduced, and further training was given on skills in research and collaboration. In addition, in the second-year supervision meetings included more focus on developing collaboration and transferring knowledge to experience as well as dealing with the case.

Looking Forward

It is hoped that further research can be completed in this area at the OU and beyond. Experience, together with the results of this limited research, suggests that employability skills are developed through clinics such as the CAP and CJC. Alumni have gone on to be awarded scholarship grants in order to qualify as a barrister, specialist legal advisors, and court advocates in England and Wales. Students have been able to utilise their skills and experience in interviews and been successful in obtaining both employment and funded PhDs. As entry into professional legal practice remains highly competitive, it is important for digital clinical legal education to fill a gap that might otherwise exist for students who would not be able to participate in face-to-face clinics. Moreover, innocence projects and the CJC provide a last chance for some of the most vulnerable in our

society to have a voice and seek justice. While much of the discussion in this article has centred around designing clinics to enhance student experience and employability, it is important to acknowledge the value of clinics' work to those that might have been wrongly convicted or given an excessive prison sentence. With the ever-decreasing availability of legal aid for convicted individuals and the lack of government-funded agencies to assist, pro bono digital clinics will be needed more (Curryer, 2022). Generative AI such as ChatGPT may assist students with their work in law clinics (e.g. with letter writing), and in improving access to justice generally, but AI cannot currently replace students due to the wide array of skills needed in such clinics. However, given AI has progressed so far so quickly it is impossible to say what the future holds in that regard.

Concluding Remarks

The CJC is the embodiment of the OULS mission of encouraging:

> critical engagement with the law and revealing the transformative effects of an outstanding legal education on society and individuals. This will be achieved through our creative and varied curriculum which is informed by our diverse research interests. We will foster personal development, irrespective of goals, prior achievement, or personal circumstances.' (The Open University, n.d.-c)

By providing students with digital learning and teaching that develops employability skills which enhance their future career prospects, we fulfil that mission by providing a platform from which students can achieve irrespective of their personal circumstances.

The final word should be left to the students. Feedback from alumni has been published in a series of blogs, as Field et al. (2022) note:

> The Criminal Justice Clinic has enabled our team of new age explorers to experience Law from a position of safety, not quite fully saddled with the responsibility of managing a case, but in the relative comfort of our own reality. Our journey into this unknown realm was enhanced by our courageous leader and cohorts, to whom we owe a great deal of thanks for their support and guidance.

Tips

The five tips for creating a digital criminal justice clinic or other digital law clinic are:

1. When considering setting up a digital clinic within clinical legal education give a lot of time and thought to how students can be supported digitally. Do not underestimate the time and energy that it takes to set up a successful clinic. This can be demonstrated when considering the difference in experience from that described by McFaul et al. (2020) as compared to van Dorresteijn et al. (2023).
2. Consideration needs to be given to preserving confidentiality by using appropriate systems for case management and meetings. The use of microphones and cameras also assists with this, not least because it means that the supervising solicitor is aware of whether any third party is in the room with the student which would be breach of client confidentiality.
3. One of the most difficult areas to incorporate is collaboration. Students often find this difficult in face-to-face clinics, but even more so when meetings are held digitally. The use of cameras and microphones is pivotal to successful collaboration, while training and support from experienced practitioners also help.
4. Training is key. The provision of training prior to participation in the CJC assisted students with revising their knowledge of law and learning new skills. It is also important to consider vicarious trauma training to protect students from exposure to sensitive materials of a distressing nature.
5. Having the correct personnel is crucial to a successful digital clinic. Thought needs to be given to who will run and teach in the clinic. The personnel need to be experienced in the legal area of the clinic. If the clinic involves dealing with real cases, it often needs to be led by a practising lawyer to comply with professional regulations. In addition, well-trained and experienced case workers are an asset.

Discussion Points

1. Discuss the implications and challenges of transforming traditional law clinics into digital formats. What are the specific advantages and

disadvantages faced by students and educators in a digital-only environment? How does this affect the acquisition of practical skills in legal practice?
2. Explore the concept of employability skills as discussed in the chapter, particularly in the context of law students working in a digital law clinic. What specific employability skills are enhanced through participation in the Criminal Justice Clinic (CJC), and how do these skills prepare students for professional legal practice?
3. Examine the role of social justice in the curriculum of digital law clinics like the CJC. How does the clinic's focus on assisting clients who claim to have been wrongly convicted contribute to broader social justice goals? Discuss the ethical considerations and responsibilities of law students and educators in such settings.

Competing Interests The authors have no conflicts of interest to declare that are relevant to the content of this chapter.

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Further Reading

For those interested in finding out more about incorporating employability into a law school, you may be interested in reading:

Cantatore, F. (2018). The impact of pro bono law clinics on employability and work readiness in law students. *International Journal of Clinical Legal Education, 25*, 147–172.

Dunn, R., Bengtsson, L., & McConnell, S. (2020). The policy clinic at Northumbria University: Influencing policy/law reform as an effective educational tool for students. *International Journal of Clinical Legal Education, 27*, 68–102.

If you are interested in vicarious trauma you might like to read the following:

Curryer, E., & Mawdsley, G. (2024). *Let's debate: The need for vicarious trauma training to support the legal profession*. Retrieved from https://www.lawcare.org.uk/get-information/articles/let-s-debate-the-need-for-vicarious-trauma-training-to-support-the-legal-profession/

For a more general discussion on innocence projects we suggest reading:

Stratton, G., Moffa, M., Sigamoney, A., & Ruyters, M. (2023). Innocence projects, work-integrated learning, and student career pathways. *Journal of Criminal Justice Education*, 1–17. https://doi.org/10.1080/10511253.2023.2231050

CHAPTER 12

An Exploration of the Use of Reflective Assessment by Policing Apprentices Whilst in an Operational Setting

Abigail Salter, Amanda Smith, and Stephen Moss

Literature Review

Exploring the definition of reflective practice is a prerequisite for understanding how reflective practice is integrated and used for learning and development in other professions. Giving something 'serious consideration' by turning it over in one's mind' (Dewey, 1933; cited by Bain et al., 2002, p. 7) and 'processing experience' (Boud, 1999, p. 123) imply reflection is a process of concentrated thinking and questioning. Nevertheless, Sumsion and Fleet (1996, p. 121) regard reflection as 'a problematic notion', with 'little agreement on what it is' or 'whether

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and how it can be promoted and measured'. Over the years, a myriad of definitions have emerged from the extant literature, none of which offer any clearer explanation (Amhag, 2020). What is agreed is that reflection is a subjective, cognitive skill (Sandars, 2009): a personal thing with a pedagogical purpose, namely learning (Smith, 2010).

It is apparent that reflection is context and purpose dependent. This idea is shared by Schön (1994) who identifies two aspects to reflection. Firstly, 'on-action', which is reflecting on what has happened, whereby problems are analysed and reframed to arrive at the solution, which in turn becomes the action. For example, talking back to yourself about a past event, which accords with Dewey's (1933) definition. Secondly, 'in-action', which is reflecting on what is happening. For example, 'thinking on your feet' (Schön, 1994, p. 54), which once mastered allows a person to deal with the unknown. This ability to 'know what you are doing when you don't know what you are doing' (Smith, 2010) is deemed the mark of a true professional (Christopher, 2015). It is this latter aspect, grounded in the constructivist theory of learning from and through experience that adds a new dimension, if not meaning, to the purpose of reflection. Whilst learning in professional fields may be experiential, 'competence' is not necessarily a product of 'experience alone' (Spencer and Brooks, 2019, p. 463). For adults, learning is achieved by 'making meaning of their experiences' (Mezirow, 1997, p. 10) and it is this 'conscious reflection' of 'unplanned events' that 'converts experience into learning' (Maloney et al., 2013, p. 618). This suggests that professional competency requires a 'deeper level learning' (Grant et al., 2007, p. 2) achieved through reflection that 'explores what you are doing, why you are doing it' and its 'impact on yourself and others' (Levett-Jones, 2007, p. 114).

In policing, debriefing is a formal and expected process to 'identify good practice and areas of improvement' (College of Policing, 2022, p. 6). This ability for police officers to 'muse on operational events' on a daily basis best aligns with reflection in-action and suggestive of the police service being 'naturally critically reflective' (Christopher, 2015, p. 326). Whilst debriefing and reflection may appear 'synonymous', on the basis that 'debrief appears in many definitions of reflection', the converse is not typical (Winchester-Seeto and Rowe, 2019, p. 335). In fact, the police service shy away from open association and engagement with the term reflection (Christopher, 2015). However, the difference appears clear; debriefs tend to be group based, and supervision led following incidents and operations, whereas reflection is an inherently personal process.

Nevertheless, amongst the divergent views of what is meant by reflection runs 'a common theme' of understanding how people process and explore their experiences to solve complex problems (Maloney et al., 2013, p. 618). As with meaning, numerous models of reflection have emerged that depict and discuss how learning from experience is achieved. Kolb's (2014) Experiential Learning Cycle from 1984 is regarded as seminal by bringing together theory (reflection/conceptualisation) and practice (experience/testing out) (Murphy and Timmins, 2009) (Fig. 12.1).

For learning, Kolb's starting point is a previous or new experience on which one reflects by carefully examining the experience from 'differing perspectives' (Clark, 2009, p. 215), for example, recalling details and considering alternate points of view (McKenzie, 2011). From this, 'conclusions and perceptions are formulated' generating fresh ideas about how to deal with similar, future experiences (Christopher, 2015, p. 330). Whilst the premise remains the same, Kolb's model has been reworked and reimagined in other models to encompass a variety of factors. In

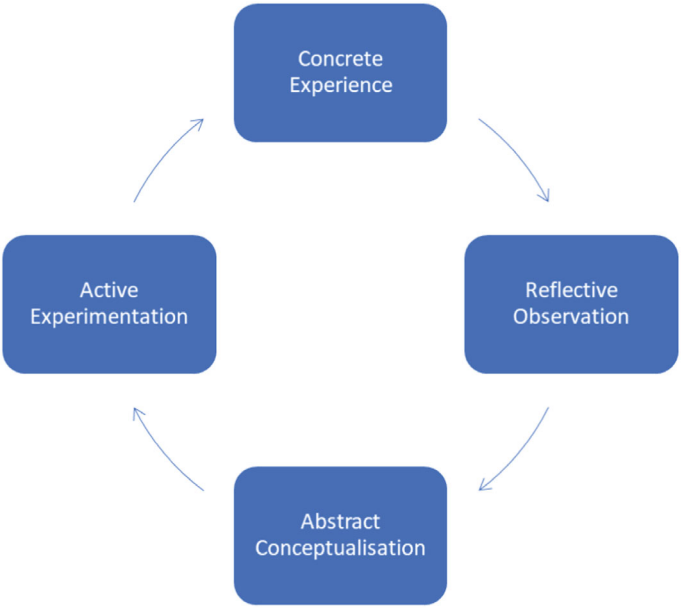


Fig. 12.1 Kolb's Experiential learning cycle (Adapted from Kolb, 2014, p. 50)

the policing context, dealing with traumatic events is commonplace and being able to contemplate how one felt about an experience paramount. This concept of 'feelings' is seen as a vital reflective element in Boud et al.'s 1985 model of reflection, and the 'recollection of positive feelings' and 'removal of obstructive feelings' fundamental when re-evaluating experiences (Boud et al., 1985, p. 26) (Fig. 12.2).

Feelings also feature in Gibbs's Reflective Cycle (1998) and are referred to in the College of Policing's Resources for Reflective Practice (n.d.) (Fig. 12.3).

However, in policing, it is Borton's (1970) Reflective Framework that is widely used in practice, being a simpler model that can be used easily by practitioners when dealing with operational scenarios (Fig. 12.4).

Whilst all these models encourage broad reflection, they are dependent on the right questions being asked. Simply asking 'how do you feel that went?' does not necessarily trigger an exorcising of emotions. This makes Allan's 2011 DEBRIEF model, adapted from Allan and Vig's (2009) DEBRIEF mnemonic (used to debrief surgical trainees), interesting from the policing perspective (Fig. 12.5).

In this model, feelings have a prominent role in uncovering and understanding the emotional impact traumatic experiences can elicit during the reflective process. In the context of work-based learning, encouraging learners to make connections and transfer experiences from one

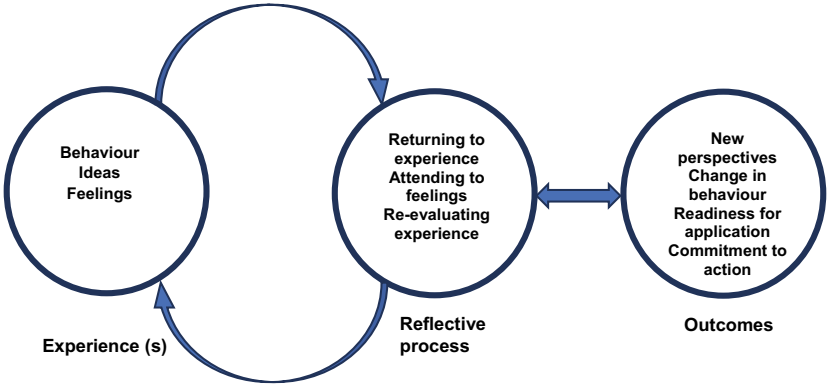


Fig. 12.2 Boud et al.'s model of reflection, (Adapted from Boud et al., 1985 p. 27)

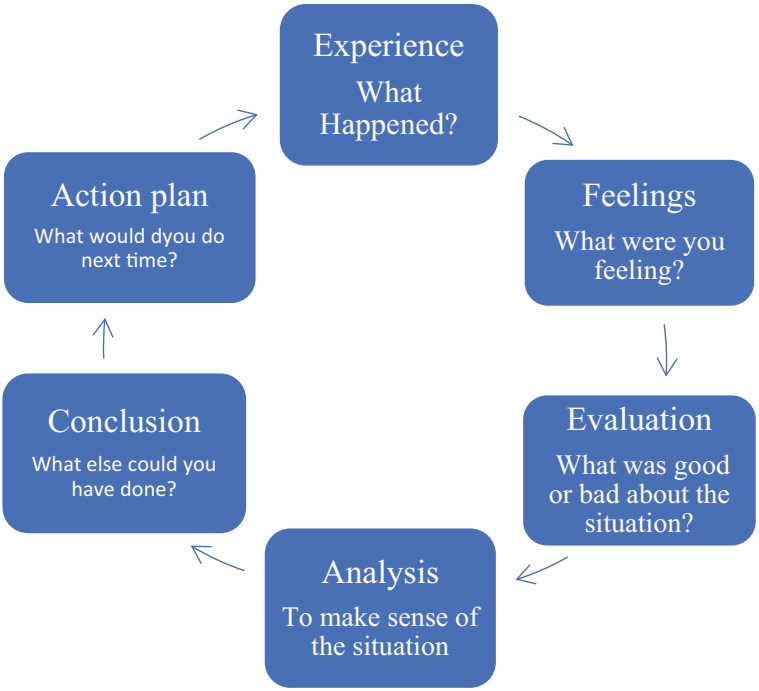
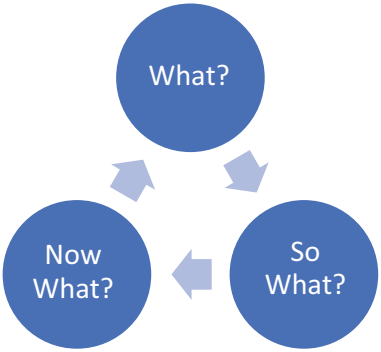


Fig. 12.3 Gibb's reflective cycle (Adapted from Dye, 2011, p. 230)

Fig. 12.4 Borton's reflective framework (Adapted from Jasper, 2003, p. 99)



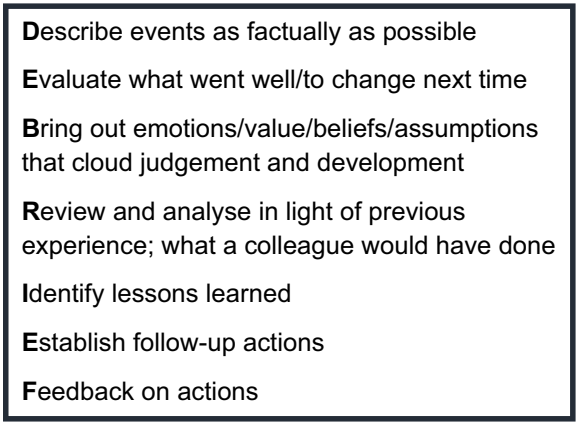


Fig. 12.5 Allan's DEBRIEF model (Adapted from Allan, 2011, p. 3)

situation to another, takes reflection past in-action to 'reflection-beyond-action' (Dreifuerst, 2015, p. 269). Therefore, learners use reflection to draw meaning from their experiences (Little & Brennan, 1996). However, with work-based learning often regarded as a 'subordinate adjunct' (Fjellström & Kristmansson, 2019, p. 574) and 'of secondary importance' (Evans & Cloutier, 2023, p. 287), there is a danger that reflection becomes 'compartmentalised' (Root & Waterfield, 2015, p. 144), with learners failing to 'link learning with personal development' (El-Awaisi et al., 2022, p. 4).

Reflection methods take 'many forms' (Paul et al., 2013, p. 388), for example, portfolios, essays, journals (written and video), and narratives. However, the diverse 'scope and depth' of reflective journals that Bain et al. (2002, p. 15) found suggests that assumptions are being made that students know how to write reflectively (Amhag, 2020). As Moon (2007, p. 193) identifies, 'simply giving students a definition and telling them to get on with the reflective task proves not to be enough'. The issue here is twofold: creating a reflective portfolio 'is a skill in itself' (Hargreaves, 2004, p. 199) and simply following a model results in 'superficial and descriptive' reflection that lacks 'quality' (Moon, 2007, p. 194). Without expert guidance, reflection can be a daunting, problematic and laborious process (Grant et al., 2007; Levett-Jones, 2007; Spencer & Brooks, 2019). Although models or frameworks 'guide the process of reflection'

(Moon, 2007, p. 194), they offer little assistance in how to reflect effectively. Moon's (2007) illustrative exercises depicting the different stages of reflection attempt to address this lacuna by identifying deep reflection as the ultimate recognition of changing variables within which the context of any reflection is set.

Despite the lack of agreement about what it means and how it is achieved, reflective practice has a pivotal role in professional development, encouraging learners 'to act and think professionally' (Boud, 1999, p. 121), 'recognise their learning needs' (Grant et al., 2007, p. 1), and 'fully develop their capabilities' (Amhag, 2020 p.1). Although a predominant 'learning tool' (Cook et al., 2019, p. 46) in the health, medical, and teaching professions, it has a widely divergent application including, for example, clinical legal education, police and fire service. However, reflection is not simply about learning from the experience, but about being able to use the newly acquired knowledge and understanding in practice (Moon, 2007). In the context of policing, the Policing Vision 2025 (NPCC, 2020) represents a sea change by embracing reflection as a means of developing confident and professional police officers capable of contributing fresh insights derived from day-to-day evidence-based practice of 'what works'. Reflection is the driver of the 'sophisticated response' demanded from the ever-changing and multifaceted context within which modern policing operates (NPCC, 2020, p. 2).

However, reflective practice in the professional sphere demands more than simple engagement, 'providing evidence of doing so' by having reflection assessed is also required (Paul et al., 2013, p. 388). Although reflective practice may be bound within the ethical code of professions (Hargreaves, 2004), as Bain et al. (2002) observe, students are only likely to reflect when it is necessary. It is assessment, which 'tends to equate to the importance of the task', that ensures engagement (Levett-Jones, 2007, p. 116). Nevertheless, scepticism exists about the ability to assess such a 'vaguely defined skill' (Rodgers, 2002, p. 842), which Hargreaves (2004, p. 200) argues is the 'marrying of two incompatible processes. The lack of validated assessment tools, ambiguity of purpose, assessor training and resource, authenticity and assessment fatigue are identified challenges' (Paul et al., 2013). Whilst the literature is sparse in terms of tools, Lillevang et al.'s (2020) two-phased Global Assessment of Reflection (GAR) tool had high acceptance in Danish GP training. Their study shows that 'preparation' using mind maps/written presentations related to specific competencies followed by 'structured discussion' designed to

elicit 'ability to reflect, analyse and engage with a dialogue', was effective in enhancing and assessing reflection (Lillevang et al., 2020, pp. 1–2).

Whilst assessment might drive engagement, the imperative to 'do well' discourages students from engaging in 'honest and open reflection' (Hargreaves, 2004, p. 196; Levett-Jones, 2007). Whilst 'reflective writing needs to be completely honest to be effective' (Genua, 2021, p. 227), Maloney et al. (2013, p. 623) found only 20% of 34 physiotherapy students completing an anonymous online survey to self-rate honesty in reflective essays were completely honest because they 'focused on what they felt the examiners were looking for'. Likewise, Grant et al. (2007, p. 7) found their 81 medical students writing reflective portfolios 'did what they thought would gain them highest marks'. It seems that knowing the reflection will be read shapes its content and limits the scope of reflection, but aspiring for high achievement is not necessarily the only factor. Despite its anticipated pedagogical purpose, reflection is a 'profoundly complex human activity' (de la Croix and Veen, 2018, p. 394), so it is not surprising that students were unwilling to discuss feelings, reluctant to criticise teachers and uncomfortable in submitting reflective narratives that did not represent their best work (Grant et al., 2007; Levett-Jones, 2007; Maloney et al., 2013). De la Croix and Veen (2018, p. 394) suggest that it is the transformation of reflection into a 'teachable and measurable construct' that has created these 'reflective zombies: students conditioned to follow prescribed thought steps rather than engaging in truly reflective behaviour'.

The literature proffers a variety of solutions for assessing reflective practice and promoting true reflection and are brought together in Paul et al.'s (2013, p. 389) acrostic TINFOIL—Train the trainers, Improve the process, Needs assessment, Focus, Outcomes, Iterative process, Linked to the literature. Whilst 'training the trainers' appears paramount, from the student perspective it is ensuring they understand the theory, method and emotional intelligence involved, so that they understand it is the process as opposed to the result that is key (Grant et al., 2007; Maloney et al., 2013; Spencer & Brooks, 2019). Although Bain et al. (2002, p. 16) allude to 'feedback from experienced mentors' as 'improving reflective writing', there is limited discussion of the importance of 'training the trainers' in the literature. Just as students are assumed to know how to reflect, there also appears to be a risky assumption that teachers know how to assess reflection (Moon, 2007). However, what is apparent is that a teacher's own stance towards reflection can influence how they promote

reflection, particularly in online learning contexts (Alden Rivers et al., 2014).

It is clear from the literature that 'reflection happens in different ways' with students finding reflection easiest when it is 'organic and unplanned' (Alden, 2013, pp. 195, 196). Whilst Grant et al. (2007) suggest that the design of reflective activities is key in terms of student learning, it is also imperative that the 'personal, messy and unpredictable nature and diversity' of reflection is 'acknowledged and embraced' (de la Croix and Veen, 2018, pp. 394–396). Given that reflection is not a one-size-fits-all, and a lack of conscious or overt reflection is not ruinous in terms of demonstrating professional performance, providing some autonomy for students to determine what type of reflection works best is crucial in ensuring engagement (Hargreaves, 2004; de la Croix and Veen, 2018). In the work-based learning context, the use of video reflection/video journaling is more 'time-efficient' and generates 'greater authenticity' than experienced through written journals (Parikh, et al., 2012, pp. 35, 45). For example, sports coaches found video reflection a more successful means of highlighting strengths and weaknesses than 'traditional reflection methods' (Carson, 2008, p. 381). More innovative methods of reflection are gradually appearing, for example, Photovoice: whereby novice teachers reflect through photographs rather than writing (To, 2020); WhatsApp—as a means of supporting action learning (Rhodes and Brook, 2021); and of particular relevance for policing is the trialling of Body-Worn Video, which has had the unexpected benefit of police officers being more aware of their behaviour aiding good practice and professional development (Owens and Finn, 2018; Phelps et al., 2016).

Despite previous research identifying the importance of the context within which reflection is situate, and the necessity for marking schemes/rating scales, the 'grading of reflective practice' remains a contentious issue (Genua, 2021, p. 227). De la Croix and Veen (2018, p. 394) suggest that 'we are looking at reflection in the wrong way' and 'using the wrong tools. The key is turning reflection into a 'habit' rather than an add-on (Phelps et al., 2016, p. 51). Arguably, students and trainers have a positive experience with reflection when it is 'normalised' (Spencer & Brooks, 2019, p. 462) by entrenching and aligning reflective practice to the learning outcomes (Curry & Epley, 2021; Roca et al., 2020). It is suggested that life-experienced learners are more proficient with reflection (Alden, 2013) than learners new to reflection who 'struggle to see its relevance' (Griggs et al., 2018, p. 1175), and that organisational culture

needs to support reflection for reflective learning to transfer to the workplace. Taking the lead from the health care professions, policing students might also need a rebranding of the term reflection to align with the more common parlance in policing operational practice of 'debriefing'.

The Police Constable Degree Apprenticeship (PCDA) is delivered face-to-face by North Yorkshire Police and combined with online learning from The Open University with the support of a Practice Tutor (PT). The PT is appointed by The Open University and has policing experience and a teaching qualification. There are three phases to the programme, starting with an initial induction and training, during which student officers complete practice role-play scenarios. On successful completion, officers move to the second phase and become operational with the support of a Student Development Officer (SDO) to help build their confidence and knowledge of working in the operational arena. The SDO is an experienced police officer trained in coaching and assessor skills. The third phase sees officers continue to work independently and complete a portfolio showing their competence against the higher-level apprenticeship utilising their SDO as a mentor.

Reflective practice is fundamental to the process and is introduced in the initial induction phase both in North Yorkshire Police and The Open University learning materials. In the first and second-year modules teaching about reflective practice covers a range of models and encourages students to think critically about incidents that they have attended and their personal impact and decision-making within a situation. However, the extant literature identifies that reflective practice may not be the assumed natural activity within the policing context. The aims of our research were as follows: to understand and capture differing perceptions of reflective practice on the PCDA; identify potential barriers to developing effective reflective practice; investigate the impact of reflective writing as an assessment tool and utilising alternative digital methods for capturing reflective practice.

Methods

The study employed qualitative methods to explore complex phenomena and gain an in-depth understanding of the participants' experiences, perspectives and subjective meanings. Data was collected from field interviews and online focus groups. A purposeful sampling strategy was used

to select participants who possessed specific characteristics or experiences that were relevant to our research purpose.

The interviews included a cross-section of police officers and staff involved in the delivery of different elements of the apprenticeship programme and representative of different roles, ranks, and experiences. Interviews were held with two police trainers (one staff and one police officer) involved in delivering initial police training, two Police Sergeants, an SDO and a Police Inspector from the Professional Development Unit (the unit responsible for the field training elements of the apprenticeship programme). The six participants were invited by direct email to take part in the interviews at their own Police Headquarters. The interviews were semi-structured giving interviewers' freedom to alter the question sequence, probe for more information, and adapt to the respondent's level of comprehensiveness (Fielding & Thomas, 2001). Each interview explored understanding and awareness of the concept, the perceived benefits and opportunities of reflective practice within the police service, as well as the potential challenges encountered by police apprentices.

Online focus groups were conducted with PTs who had responsibility for assessing the reflective practice assessments on the PCDA. Focus groups allow participants space to discuss issues they deem significant, and data generation from the participant interaction (Bagnoli & Clark, 2010). The focus groups were used to explore the PTs' perspectives on using reflective practice in assessments on the PCDA. There were three focus groups with nine participants in total, with the PTs being selected to represent a cross-section of experience of being a PT on the PCDA. The focus groups were conducted virtually using MS Teams and participants were invited to attend by direct email.

The interviews and focus groups were recorded and transcribed, and then analysed using Delve Qualitative data analysis software, a content analysis tool for small-scale studies. Deductive coding based on the findings of the literature review and interview questions was used to firstly establish relevant themes under which the responses could be grouped: meaning and understanding, learning benefits for police training, general benefits in terms of personal, professional and force development, reflection opportunities and activities, obstacles, challenges, and stress factors associated with reflective practice in the apprenticeship context and possible improvements. Thereafter, inductive coding arising from the interview and focus groups responses was used to establish and build key themes.

The key ethical issues considered and mitigated in this study related to the collection of personal data, maintaining confidentiality and data protection. Personal data was restricted to name and contact details only, limiting the amount of personal data collected. Non-anonymised data (information linking audio recordings and transcripts to participants) were maintained separately on a secure server which was password-protected and encrypted. All data held on Open University work laptops was transferred to the secure server which were only accessible by authorised Open University research team members. Open University work laptops are supported and maintained through central IT services who provide patching, virus and software updates to maintain the integrity and security of each laptop. Additionally, each laptop is encrypted using Bit locker which provides strong password-protected access control to all data contained thereon. Data access was restricted to the research team, password protected, and stored and retrieved from The Open University's SharePoint (and passwords were changed every 30 days to mitigate unauthorised access).

The interviews were audio recorded using a Dictaphone and transcribed using an Open University approved transcription service. Unique identifiers were applied to these files (therefore omitting any personal identifiable information). A non-disclosure agreement was in place between The Open University and North Yorkshire Police to manage the exchange of confidential information and, once interviews had been transcribed, audio files were deleted. Information sheets and consent forms were signed by participants. Consent was confirmed at the start of each interview and focus groups and participants were reminded that they could withdraw from the study at any time and up to 7 days following the interview or focus group. MS Teams focus group data was captured utilising the software's recording and transcription facilities with the files being saved to a secure folder.

Although the findings of this study provide valuable insights, limitations exist that may influence the interpretation and generalisability of the results. Firstly, the sample size was relatively small, with a total of 15 participants, none of whom were learners on the programme. The perceptions and opinions are those of police officers, police staff, and PTs who provided their views on how they thought learners felt about reflective practice. It is acknowledged that undertaking a further future study involving a sample of leaners to provide a more comprehensive understanding of the topic would be beneficial.

Findings

Inductive coding arising from the interviews and focus groups responses elicited the following key themes: a divergent understanding of the purpose of reflective practice within the context of the PCDA; a disconnect between the meaning of reflection within the context of the PCDA and how policing as a profession is culturally used to practising reflection; the need for increased support in assessing reflective practice and a greater harnessing of the 'naturally critically reflective' nature of policing. The following quotes are illustrative of participants' responses in relation to the overarching themes.

Divergent Understandings of Reflective Practice

Both North Yorkshire Police staff and PTs understood reflective practice to be a constant cycle of self-analysis corresponding with the meanings advanced in the literature review:

> …looking at what you've done, what did you do well, what could you develop on, what other options could you have done… (Participant A)

Similar views were expressed by participants in Focus Groups 2 & 3. The purpose of reflection was viewed positively by all participants:

> it's huge for a police officer to reflect efficiently to better the service we provide…develop better practice and better behaviours. (Participant C)

North Yorkshire Police staff found reflection useful following role play in the initial training:

> So, before they got into their next practical day … they can go back and look and say right OK these are the areas that I thought to myself I need to really look at again or these are the areas that I'd done really well in (Participant B),

They also felt that it was an enabler for student officers to enhance their professional development:

> Build on their knowledge and their training and keep adding to it… to keep up to date (Participant A)

This view was also expressed by Participant C.

However, our findings suggest a divergent understanding of the purpose of reflective practice within the context of the PCDA. As participant C identifies:

> the police 'reflect all the time... they reflect after every job they go to… they reflect with their tutor.

Yet, participant A indicates that:

> 'some student officers who are not really academic and they've gone I genuinely don't understand what this is asking me to write about.

Terminology may be the issue: Participant C stated that in operational policing, reflection is a:

> debrief…a hot debrief…in the car going from one incident to another.

This is supported by comment in Focus Group 3 that students don't get it but as soon as it is put into operational language and identified as a debrief it's a lightbulb moment.

Although North Yorkshire Police staff understand reflective practice in a police training context, they do not know what is being asked in the Open University Tutor Marked Assessments associated with the PCDA:

> there is no real front loading from the OU as to what it (reflective practice) means (Participant B)
> I don't know the ins and outs of a reflective essay (Participant D).

Disconnect When Using Reflective Practice

A further consideration is how policing as a profession is culturally inured to practising reflection. Whilst one aim of reflective practice within the assessments is to demonstrate developing professional competency, the findings suggest that North Yorkshire Police staff, and some PTs, regard reflective practice as a purely surface level, post-incident activity limited to describing what has happened. Debriefing fails to achieve the 'deeper level' learning envisaged by Grant et al. (2007, p. 2) and was perceived to be:

> turning out effective reflective practitioners of the art of self-reflection, as opposed to effective police officers who are able to use self-reflection to improve their practical abilities. (Focus Group 1)

Alongside the lack of understanding and cultural practice, the written nature of the reflective assessments was identified by all participants as a notable barrier to effective engagement. Keeping logs and writing reflective essays was, according to Participant C:

> 'repetitive'

Whilst Participant F stated that students disliked:

> sitting there writing reams… especially as some struggle with literacy…. making it time consuming.

As Alden Rivers et al. (2014) identify, students can be influenced by the stance towards reflection taken by each individual in the process. The lack of understanding of what is required on the part of the North Yorkshire Police staff may explain the findings from the PTs in Focus Group 2 that there is:

> resistance from the students to engage with it (reflective practice).

because they

> don't understand the process…don't value it…and see it as a tick box exercise.

This is supported by similar comments found in Focus Group 1 and in the interview with Participant F who says that students admit to:

> putting what I think I have to…to save time…and I think that's what most students will do.

Focus Group 3 suggest that completing reflective exercises:

> is just for university and doesn't matter.

Participant G observed that student officers see their studies as an:

> add-on..a complete separation to policing…go to work and do policing and go home and do TMAs.

Whilst the literature recognises the benefits of reflective practice as motivational, these findings highlight the risk in its use as an assessment tool (Hargreaves, 2004).

The consensus is that policing is a fast paced and stressful environment with considerable written paperwork to complete when working operationally. This volume of writing together with Open University requirements of the apprenticeship is viewed to be an obstacle and challenge. There was a strong view amongst the participants that it would be better to reduce written assessments and use other methods:

> …less maybe of the written form and giving them different options…if you were speaking it, you would discuss it. (Participant F)

For example, within the service Body-Worn Video is being used to provide feedback. Access to real-time recordings of incidents provides authentic evidence of operational interactions and dynamics and an accurate analysis of an officer's abilities and behaviours encouraging deeper reflection, good practice and professional development (Phelps et al, 2016; Owens and Finn, 2018).

The Need for Support

It is clear from the findings that student officers already reflect through the process of 'debriefing'. Nevertheless, increased support is required to harness these natural skills and translate them into reflective practice that goes beyond mere superficial and descriptive content. To develop professional practice requires a deeper, more critical analysis of actions taken. Moon emphasises the importance of this and describes a series of exercises that 'address the difficulty of learners to start with reflection and then – at a later stage – to deepen their reflection' (Moon 2007, p. 194). Meeting the new 'professionalisation agenda' (Policing Vision 2025) means using reflective practice as a change process and all those involved in the delivery of the PCDA as change agents. This requires a commonality of understanding as regards why reflective practice, and reflective writing within assessments, is included in the programme so that students can see the relevancy of the degree input into their working lives.

Impact

The apprenticeship student body is atypical of higher education with diverse academic levels, experience of learning, and experience of reflective practice representing a unique discourse for reflective practice and assessment. Set within the fast paced and stressful environment of policing, our research revealed various cultural challenges impacting effective reflective practice within the PCDA. Notable issues were the volume of writing in the operational and study contexts, and Open University study being seen as an 'add on' to operational policing rather than an integral part of the learning process. Our research highlights that harnessing digital capabilities can help support differing learning styles and enhance the student experience of reflective practice. Whilst written reflection remains a viable alternative, creativity and a variety of interactive approaches are important to ensure engagement, for example, case studies testing knowledge. Utilising audio and video reflection methods help develop key skills and motivates engagement with reflective practice. For example, video diaries build oral communication skills (required in apprenticeships for the end-point-assessment professional discussion with an independent assessor). In policing, the use of video recordings as an operational reflective practice tool aligns with the broader movement towards evidence-based approaches to officer development. However, this then presents challenges around timetabled availability for policing apprentices, already time constrained by the initial training curriculum. Likewise, our own experience of introducing video diaries to the PCDA highlights that different approaches can be impacted by digital literacy skills, time demands, and technical challenges. Support and training are imperative in all aspects of a programme so that students and staff will be engaged and confident in the processes that they are working with; if an audio recording is to be used then adequate information and support must be available so that students can make recordings.

Practices within the PCDA have been strengthened in the light of the findings from this project and are continuously under review and development. For example, the number of reflective assessments has been reduced to provide space for deeper reflections whilst briefings to SDOs and PTs have been revised to provide clear guidelines of expectations. The idea of depth within reflection is emphasised in the assessment briefings for the second year of the PCDA with students and PTs being introduced to Hatton and Smith's (1995) model that suggests progression

from description at Level 1 to critical reflection at Level 4. In addition, an online community of practice is being encouraged amongst all programme delivery stakeholders supported by an annual two-day face-to-face workshop to share understandings of the meaning of reflective practice and best practice. A reflective practice toolkit for students has been developed which includes an animated video of the Gibbs Reflective Cycle (1988) to bring to life, in visual form, how this cycle can facilitate reflection.

Conclusion

Our research highlights that a key consideration of any work-based learning programme is the people responsible for its delivery. As a tool for supporting professional development, the use of reflective practice generates supporters and antagonists, and, within these groups, there will be different levels of knowledge and understanding about what the term means and how it fits into the programme, particularly when working across organisational boundaries. Whilst the PCDA trainers (SDOs, operational police officers, Open University lecturers and PTs) work with reflective practice, they do not necessarily have a shared understanding of it, both in terms of conceptualisation and practices (Moon, 2007). Police training staff and PTs with policing backgrounds are inculcated in police culture and adopt their own stance towards reflective practice, which may influence its promotion, particularly in online learning contexts (Alden Rivers et al., 2014). Meeting the needs of a work-based learning programme that uses reflective practice to assess students and support their professional development requires those delivering learning to be developing their own practice. Likewise, a strong and positive relationship between delivery partners is essential for building a connected approach between the workplace and work-based learning. Delivery stakeholders need a commonality of understanding of terms and processes through open dialogue to explore ideas and gain consensus about meaning, for example through a community of practice or workshops to develop this joint understanding.

In terms of learning design, identifying any disconnect within the work-based learning module and the workplace should not be underestimated where the aim is to promote true reflection through assessment (Paul et al., 2013). Changing some of the methods of work-based learning assessment to something more practical and/or interactive could

have a positive impact on attitudes and behaviour towards reflective practice. Whilst the aim is to embed reflective practice as a process, the emphasis should be on the significance of reflective practice and the benefits of the reflective process in developing professional practice. Appropriate formats and enhanced understanding will help students develop their practice away from assessment thereby mitigating the risks and turning reflective practice into a habit rather than an add-on (Phelps et al., 2016).

Whilst this was a small-scale project focusing on the PCDA, the findings have impacted more broadly in wider work-based and online learning environments, including apprenticeships. Awareness raising has been a key impact of the study. The research provides us with an improved understanding of the use of reflective practice within assessments for apprentices in operational settings. The knowledge from this research will assist in developing and improving the PCDA overall and has also driven the assessment design for the work-based learning module of the Degree Holder Entry Programme (DHEP). This newer programme includes alternative methods of assessment such as submitting oral and visual presentations and avoiding a heavy written assessment load.

Tips

- Delivery stakeholders and their training needs are a primary consideration. When using reflective practice as a learning and development tool it is important that a shared narrative within the specific context is being used. Linked to this bringing together all delivery stakeholders at an early stage is vital.
- Consider student needs in terms of academic level, experience of learning, and experience of reflective practice carefully. It is crucial for all students to be considered as individuals and that assumptions are not made about the readiness or capability of students to be able to reflect critically on their own practice.
- Consider student capabilities in terms of digital literacy and time constraints. Similarly, assumptions cannot be made about the digital literacy of individual students and while alternative methods of recording, rather than writing, might seem attractive, adequate support and scaffolding is likely to be required. An important consideration of using alternative methods is the impact on time.
- Scaffolding is imperative in all aspects of a programme so that students and trainers will be confident and engaged in the processes

that they are working with. As well as having a shared definition of reflective practice, it is important that everybody working within the process understands how it is being used as a learning and development tool. This is particularly the case in the context of assessment.

Discussion points

1. What steps might you take in mitigating the risks of using reflective practice as an assessment tool?
    a. Consider the scenario that within an assessment process there might be numerous roles including tutor, assessor, and student.
    b. Potential risks could be:
        - Students adapting their behaviour to respond in a way that they think they should, rather than using reflective practice as a development tool.
        - Students concentrating on reflection as a task to complete rather than a process to learn for future development.
2. To what extent does digital literacy and time constraints impact online learning?
    a. What are the student profiles?
    b. What support processes need to be put in place:
        - For students?
        - For staff?

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Further Reading

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CHAPTER 13

Simulation Games in Teaching Operations and Supply Chain Management

Nicoleta Tipi

Introduction

Simulation games have been introduced into business education for many years and there are numerous examples where they have been successfully implemented and used to convey operations and supply chain concepts (Badurdeen et al., 2010; Loon et al., 2015; Tipi, 2021b; Vogel et al., 2006; Webb et al., 2014). Across a number of disciplines, simulation games offer the opportunity to present theoretical content that closely replicates reality. This approach allows for the exploration of a variety of trials, tests and experiments within a simulation without the concern that this will affect actual operations. This means that not only do learning designers have the freedom to be creative in terms of what to consider as a change within a simulation, but it is also a cost-effective and time-efficient way for a learner to make and observe operational adjustments in a simulated environment rather than to a real system. Using this approach means that operational changes can be observed without the need to wait

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for a long period of time to see the impact of a particular change on an operation. Therefore, it can be argued that simulations offer a different way of engaging students in their learning journey.

Such games can be incorporated in the teaching material as new or additional tools to improve and enhance the learning experience of students. Goi (2019) captures several motives highlighting the importance of incorporating simulations games in business studies teaching and learning, for example: they are designed to be based on real-world complex concepts; have the potential to connect learners from around the world in the same digital learning environment; engage learners in critical thinking and promote positive participation, perceptions and motivation; allow for processing and exploring information in a digital fashion; and encourage imagination, creativity, problem-solving and decision-making ability.

Advances in simulation software packages have paved the way for the development of computer-based simulations (Akilli, 2007). Simulations are used in practice by organisations, specifically developed for training and learning. Computer-based simulations have also been incorporated in teaching material together with experimental exercises and various games including board games (Summers, 2004).

Abstract concepts such as the supply chain are difficult to imagine, as they are comprised of several organisations (producers, manufacturers, packaging factories, transporters, wholesalers, retailers, consumers, recycling collection points) all coming together to deliver a product or a service in a hypercomplex network structure. It is recognised in the field that supply chains are best represented using computer-based simulations due to their ability to capture the complexity of such systems (Chilmon & Tipi, 2020). Along with the challenges of using particular software packages and presenting specific operations, there are also challenges in relation to user interaction and accessibility. In order to mitigate for these, they need to be fully tested by learning designers and tutors for any possible errors or data inconsistencies before they are ready to be implemented in any teaching material.

This chapter brings together some of these challenges and discusses them in the context of developing simulation games for digital teaching. The next section discusses different types of simulation games, presented in various formats in teaching operations and supply chain in business education. The chapter then moves to known and recognised benefits and limitations for implementing simulation games in teaching, and, more

specifically, digital teaching. Ways in which tutors can consider developing their own simulation games to meet the needs of the material they include in their modules are then explored.

The chapter concludes with a simulation game, suitable for the use in operations and supply chain management teaching. This includes a numerical example that may be adopted by tutors in their teaching. The conclusion also highlights some of the key elements and challenges to consider when simulation games are used in digital teaching.

Simulation Games in Digital Teaching

Simulation Games Developed Based on the Mode of Teaching Delivery

There are a number of simulation games that have been used in teaching, in-class, face-to-face or digital live delivery. The simulation games developed for in-class, face-to-face delivery assume that the tutor is available and can interact with students in live mode, responding to questions or dealing with issues such as when a particular simulation running error occurs. This is, however, a very different model to a computer-based simulation, designed for digital asynchronous delivery, where a tutor may not necessarily be available at the moment an issue may occur, or there is a particularly immediate question from a student (Tipi, 2021b). In this case, the mode of communication with students is not instantaneous and students will likely ask the question via a digital forum or similar and gain the response with some delay. This type of communication then needs to assume a very detailed form of instruction, suitable for learners to follow (in a step-by-step fashion) and be able to employ the simulation as a learning tool. In summary, this implies a very different approach for learning design.

Simulation Games Based on Tools Used

There are a number of simulation games used in business education that are non-computer-based simulation games, for example, board games, building blocks games and paper-based simulation games that cannot be incorporated into digital teaching (Akilli, 2007; Badurdeen et al., 2010; Summers, 2004; Tipi, 2021b). However, there are a number of computer-based simulation games that are developed specifically for digital teaching, and which use particular software packages (for example:

Excel™, Vensim™, Simul8™, ARENA™) as development tools. Anderson and Morrice (2000) have used system dynamic concepts to develop a simulation game for teaching using Vensim™ and iThink™ simulation packages. Weltman and Tokar (2019) developed a simulation game using Monte Carol™ simulation in Excel, with the optimiser Solver™, and utilising Oracle Crystal Ball™ reports. Many other simulation games have been developed for digital teaching some of which use simulations for an ERP system (enterprise resource planning) using SAP™ (Systems Analysis Programme Development) software (Angolia & Pagliari, 2018), or discrete event simulation for the supply chain, using ARENA™ software (Tipi, 2021b).

Simulation Games Developed Based on Level of Student Interaction

Simulation games can be developed and incorporated into digital teaching material according to differing levels of student interaction. For example, they can be used in a basic way to demonstrate operations concepts, where the level of interaction is kept solely to observe potential changes. For these types of simulations, students do not have the option to make changes to the simulation model; however, they do have the opportunity to reflect on the numerical changes as a result of running the simulations. Such types of simulation models are most suitable for asynchronous digital teaching. However, although students do not make changes to the simulation model during their learning, these models are still effective in engaging students with analytical content. The software package used to develop these models is generally hidden from learners; students would only have access to the interface created for user interaction.

There are, however, simulation games that do allow user interaction. In relation to these types of models, students can make various changes, including changes to input data, changes to processes, and system changes. These types of games require more substantial interaction and changes where learners are required to have a good understanding of the model used, and the software used for the simulation. These models are more specific to synchronous digital teaching, where the tutor also provides instructions on how to use the software for the game. Although more challenging from a delivery point of view, they do have the potential to offer deep learning opportunities. Simulation models of this type are used in business education, but more likely to be seen in advanced business modelling classes. Students working in these contexts have the option

to observe the effect changes they consider making may have on different operations and the supply chain (Tipi, 2021b). The link and integration with theory can be obtained much more effectively, with students having the opportunity to further develop their problem-solving skills (Vos, 2014).

Benefits to Adopting Simulation Games in Digital Learning

The following section advances some key benefits to the use of simulation games, as reported in the literature on adopting simulation games in digital teaching and learning.

The literature on simulation games indicates that it is possible that students can acquire a number of skills by engaging with them, for example, critical analytical abilities (Hernández-Lara et al., 2019), together with teamworking and decision-making. Beatriz Hernández-Lara et al. (2019) argue that using simulation games offers students the opportunity to employ knowledge from other studies, such as accounting, strategic management and finance. For this reason, it is suggested that tutors should encourage learners to use previous managerial knowledge when engaging with these games in order to further advance student knowledge. This then permits them to see how different functions in business models come together and thus further develop their analytical thinking. When simulation games are designed for interaction and group work, they aid student development of communication, teamworking and negotiation skills (Vos, 2014). Badurdeen et al. (2010) argue that simulation games promote greater inter-module knowledge transfer and accommodate a greater range of learning styles, for example, learners who prefer to use more practical examples, working with different applied concepts, working with visual concepts where animation and graphical representations are in place.

Challenges in Adopting Simulation Games

Andreas Liu et al. (2009) analysed reasons for tutors ceasing use of simulation games in their teaching. Some of these include: the flexibility and changes required in setting assignments, the time commitment required to engage with the simulation games, the expectation to make changes to curriculum when embedding simulation games, simulation games not

being regarded to meet the set learning objectives and simulation games that require longer preparation.

Lack of preparation and insufficient funding also feature as reasons why simulation games are not more regularly used in teaching (Liu et al., 2009). Additional reasons reported in their study include: a lack of information on simulation games which would better enable tutors to offer simulation games for their modules; inadequate fit with the course material; and technical issues taking up extra time for tutors.

Adopting readily available simulation games into teaching requires preparation and a clear fit to current module learning objectives.

Beatriz Hernández-Lara et al. (2019) also comment on the challenges linked to the use of simulation games, referring to the success of learning being linked to the manner in which simulation games are being used by students and tutors. It can be argued here that the same game being introduced by different tutors with different levels of understanding and experience in using the game could result in different outcomes, in terms of how students engage, interact and understand the intended concepts put forward. If an error occurs, when a computer-based simulation game is being used for learning in an asynchronous environment, this could negatively impact on the learning experience for a student. This point is also put forward by Riley et al. (2017) who highlight that the mode of delivery affects students' comprehension when teaching operations management concepts using simulations.

One other challenge observed by Beatriz Hernández-Lara et al. (2019) is the performance of players in the lower age groups being higher than those students in the higher age groups. It can be argued here that younger players may be used to engaging with games and look for attaining performance success to a greater extent than the learning experience.

Challenges in adopting simulation games have also been identified by Badurdeen et al. (2010) who highlight that students may find being left out or being placed in competition with one another may not find this situation conducive to learning. Other aspects highlighted are linked to the facilitator not being able to create a learning environment, or giving incorrect advice, aspects that link to the point above by Beatriz Hernández-Lara et al. (2019). Another notable challenge is when students find it difficult to link learning from a simulation game to a real-world scenario. Not having this requirement clarified by the tutor will negatively affect the way students interact with the simulation game.

The next section explores how tutors can develop their own simulation games, thereby avoiding an overreliance on predeveloped games.

Developing a Methodology for Designing Simulation Games for Teaching

A number of authors have proposed methodologies for developing simulation models (Chilmon & Tipi, 2020; Oliveira et al., 2016; Pasin & Giroux, 2011; Tipi, 2021a). Following on from their work, the methodology outlined below captures some of these principles and adapts these to developing simulation games for digital teaching (Akilli, 2007). In Tipi (2021a, pp. 40–41), I introduce the following modelling stages in the context of supply chain: (1) understanding reality and identifying the problem; (2) conceptualisation stage; (3) modelling stage; (4) analysis stage; (5) implementation stage and (6) post-implementation stage (see Fig. 13.1). Although these have been introduced in the context of supply chain, they can equally be adapted in other business models or operations context.

The rationale for adopting these stages is as follows: the starting point of Kolb's learning cycle in which learners engage in a concrete experience at the point at which students engage with the supply chain simulation game developed (Kolb, 1984). This is followed by students reflecting on the experience they have, both during and after the simulation has taken place (Schön, 2016). This gives students the option to reflect on abstract concepts and link their observations, while running the simulation, to supply chain management concepts. Following this step, students have a better picture on evaluating complex operations in a supply chain system and are better equipped to test these concepts in practice.

The developed methodology as presented below is considered with the view to help teaching and research staff to design and use differing variations of simulation games in their class delivery. This is presented in the context of operations and supply chain management. However, it should be noted that this approach can be adopted more largely to business models in general.

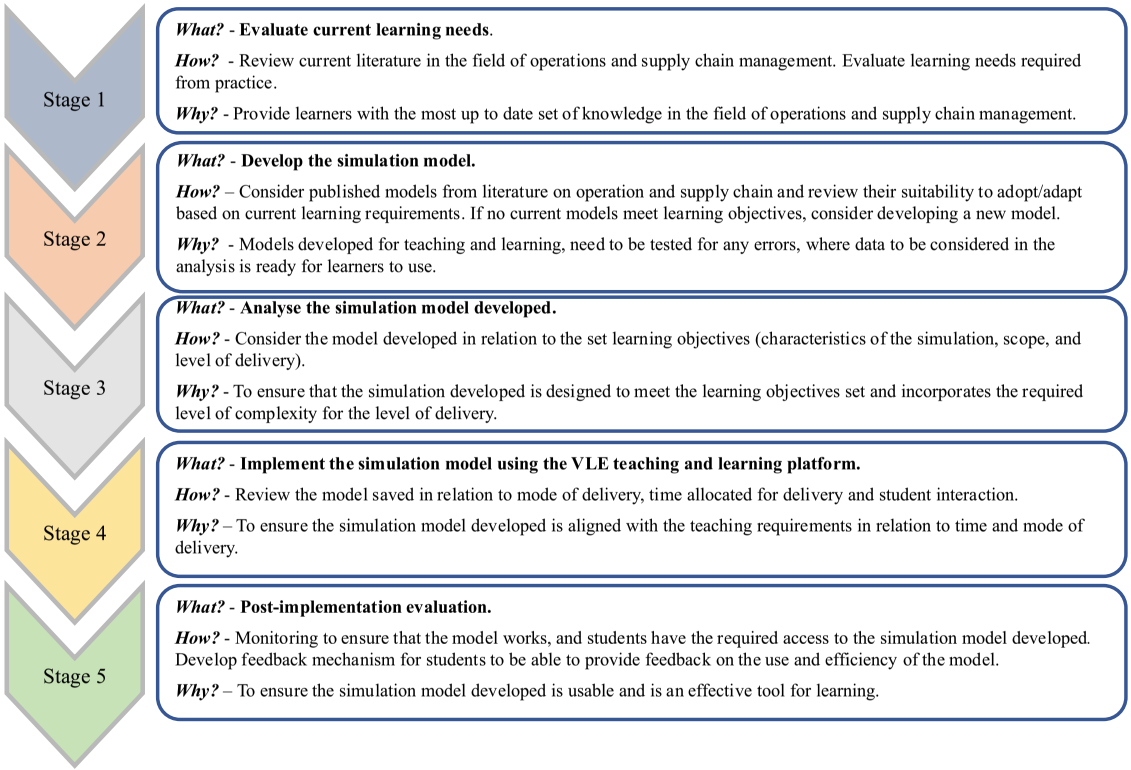

Fig. 13.1 Modelling framework for developing a simulation for teaching and learning for a computer-based approach (*Source* Tipi, 2021b)

Modelling Framework for Developing Simulation Games for Digital Teaching

Stage (1) Evaluation of Current Learning Needs

This stage addresses the first stage in Kolb's learning cycle by aligning a situation with reality and allowing the learners to have this experience. In developing the simulation game, developers can approach this following a review of current literature in the field of study (in our case, operations and supply chain management) and evaluating the learning outcomes required to develop effective practice. This stage provides learning developers with the most up-to-date set of knowledge in the field of operations and supply chain management. Learners engaging with a simulation game will benefit from understanding current operational problems and how they can be approached using a simulation game.

Stage (2): Simulation Model Development

In this stage, developers need to consider who the learner is that will engage in particular activities, and have the opportunity to reflect on this. For this stage, published models in the field of operation and supply chain management can be considered and reviewed for their suitability to adopt/adapt based on current learning requirements. If no current models meet the stated learning objectives, a simulation model developer in collaboration with the teaching team may consider developing a new model that meets learning needs. For a new model, the 6 step instructions I introduce in Tipi (2021a, 2021b, p. 41) may be adopted. These are: scope, data, technique, software, final model, verification and validation. Models developed for teaching and learning must be tested for any errors, where data to be considered in the analysis is ready for learners to use.

Stage (3): Analyse the Simulation Model

This stage is key in the development process as it will ensure there are no simulation errors (the model is free of software-specific errors), and the simulated model reflects the reality intended for simulation (the model is free of data-specific errors). The model developed needs to be considered in relation to the objectives set (characteristics of the simulation, scope

and level of delivery). This is to ensure that the simulation developed is designed to meet the learning objectives set and incorporates the required level of complexity for the level of delivery.

Stage (4) Implement the Simulation

At this stage, the developed simulation model needs to allow for the opportunity to trying out different ideas, using different sets of data (as input data) and requiring a degree of flexibility. The simulation model developer needs to review the model developed in relation to the learning environment, mode of delivery, time allocated for delivery and student/user interaction. By conducting a thorough review of these aspects, simulation games developers can ensure that the simulation model is appropriately tailored to the educational context and facilitates optimal learning experiences for students. This step will allow for the model to be implemented in the set learning environment, for example, a dedicated digital platform.

Stage (5) Post-implementation

At this stage, students have the opportunity to provide feedback on their experience and tutors will be able to potentially make further modifications to the model developed. The tutors using the simulation model may consider monitoring to ensure that the model works and students have the required access to the simulation model developed. The model needs to ensure that a feedback mechanism is set in place for students to be able to provide feedback on the use and efficiency of the model. This is to confirm the simulation model developed is usable and is an effective tool for learning.

Feedback linked to the usability and effectiveness of the simulation game for learning can be indirectly collected in the sense that it can be observed if students have engaged with the game using the available digital platform, as well as they have reached a final result. The model can also be set to indicate the frequency of accessing the simulation game. This is an indication of the need for repetition, therefore, a learning indicator. One other mode of collecting indirect feedback is in the form of the answer provided by students in their assessment, in terms of its completeness, quality and correct calculations. Direct feedback can also be set. This

can be in a form of a set survey that will directly ask students questions about the impact the simulation game had on their learning experience.

Therefore, simulation model development has five stages as illustrated in Fig. 13.1 and represents the modelling framework for developing simulations for digital teaching. The developed simulation games are also intended for learning and assessment. These aspects are not captured in the framework below; however, this can be extended to incorporate aspects of digital learning and assessment.

A Simulation Example

The following example is developed and follows the requirements of Stage 2, outlined earlier.

Within this section, the transshipment model will be introduced as a simulation game to be considered for teaching, learning and assessment. The model will be introduced first and this will then be evaluated in the context of developing the simulation game for digital teaching and assessment. This model can be used for learning the concept of optimum distribution of good within a supply chain environment.

The transshipment model has a network representation and variations of this model have been introduced by many authors in operations management books (Baker, 2015; Ragsdale, 2018; Russell & Taylor, 2014; Tipi, 2021a). Understanding this type of model is critical in the area of operations and supply chain management as it highlights knowledge of how products are being delivered from the point of origin to a final destination via an intermediate point(s) where products are reviewed, repacked and put in the format required by customers. There may be a number of intermediate points to be considered, one after the other, for example, transportation from a national distribution centre to a local distribution centre before products reach the final destination. The network representation may be from manufacturing plants to local distribution centres that are situated at different locations in the country before products reach their final destination. There are many other variations of this model where, for example, some products are transported through a transshipment point, and some others are transported directly to the final destination without the use of the transshipment point (Tipi, 2021a).

A number of variations can be considered, and all of these occur frequently in practice. Therefore, a good understanding of this model

and considerations of various forms, representations and numerical representations is particularly important for students studying operations management, logistics management, transportation modules as well as supply chain modelling modules.

Transshipment Simulation Game

This simulation game is designed to consider two original starting points in the form of manufacturing plants names as (M1, M2), one intermediate point, noted as DC, and three destination points marked as customers (C1, C2 and C3). The principle of developing this model is the same regardless of whether the network structure is changing, with more elements added to the model in this case. The proposed original network representation of the simulation model is noted in Fig. 13.2.

Input Data

It is particularly important to recognise what input data is required, in other words, data that the tutor will supply. In a practical example, this is the data that needs to be collected by the analyst in order to begin to determine a solution for this distribution model.

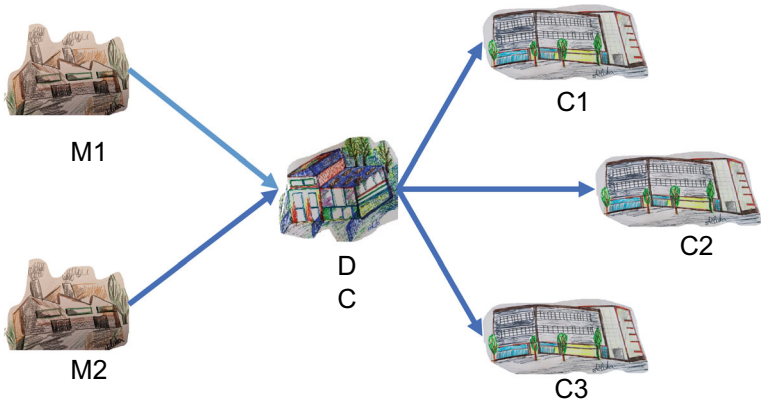

Fig. 13.2 Simulation Game example: Network Flow Diagram for the transshipment model

For this particular simulation game, the scenario is that there is no demand at the distribution centre and there is no limit to capacity at the two distribution centres. Demand is customer driven and capacity is allocated to each manufacturing plant. Therefore, the input data or data that is required to be collected by an analyst before determining the optimum plan for delivery is as follows:

- The number of organisations that are taking part in this delivery. In this particular example we have two starting points or sources (M1, and M2), one transshipment point (DC) and three destination points, or customers (C1, C2 and C3).
- The capacity allocated to each manufacturing location, or the sourcing unit
- The demand associated with each retailer/customer
- The cost to transport products from one location to another. In this case, the cost of transporting products/units from each of the three manufacturing plants to the two distribution centres and the cost of transporting products/units from these two distribution centres to the six retailers.

The aim of this simulation model is:

- To identify the minimum transportation cost when delivering products through the network.
- To provide a delivery plan.
- To meet the customer demand by delivering products from the manufacturing plants. To the distribution centres and from the distribution centre to the final destination by not exceeding the manufacturing plants capacity.

The expected output data from the simulation model is:

- Quantity to be delivered from each manufacturing plant to the distribution centre and from the distribution centre to each customer.
- The total quantity delivered from each manufacturing plants and the left-over capacity at the manufacturing plant after a delivery.
- The total transportation cost.
- The total number of products delivered to each customer.

- The total number of products that go through each distribution centres.

At this point, the tutor can engage in a detailed discussion as to which of these now form the set of performance measures for the simulation model and which could be identified as key performance measures.

Following this discussion, and the understanding of what can be changed into the model, the following step looks to identify the correct mathematical model that supports students to obtain a solution to their simulation.

The mathematical model in this case is as follows:

Variables: The number of products delivered from the two manufacturing plants to the DC, together with the number of products delivered from the DCs to the three customers. In total, there are five variables. The discussion now could also consider the possibility of including an additional distribution centre. How many variables will be in this case?

Constraints: For this type of simulation there are three sets of constraints: (1) capacity constraints at the source; (2) demand constraints from customers; and (3) transshipment point constraints. To present these for this simulation game, the following are considered:

Constraints Set 1: The total number of products delivered from the manufacturing plants (sources) to the distribution centre (transshipment points) are less or equal (<=) with the manufacturing plants capacities.

As in this simulation there are two manufacturing plants, there is the expectation to see two defined constraints such as:

- The total number of products delivered from the M1 to DC <= M1 capacity (500 units).
- The total number of products delivered from the M2 to DC <= M2 capacity (330 units).

Constraints Set 2: The total number of products delivered from the distribution centre (DC) to the three customers are higher or equal (>=) to the customer demand.

As there are three customers, there are three individual set of inequalities presented in this case:

- The total number of products delivered from the DC to C1 >= customer 1 (C1) demand (212 units).
- The total number of products delivered from the DC to C2 >= customer 2 (C2) demand (358).
- The total number of products delivered from the DC to C3 >= customer 3 demand (249).

Constraints Set 3: The total number of products delivered from the manufacturing plants to the distribution centre is equal (=) to the total number of products delivered from the distribution centre to the three customers.

As there is only one distribution centre in our case, the following equations need to be set as a constraint:

- The total number of products from M1 to DC + the total number of products from M2 to DC = total number of products delivered from DC to C1 + total number of products delivered from DC to C2 + total number of products delivered from DC to C3.

The objective function in this case is to minimise the total transportation cost, which is formed from the total transport cost to deliver products from the two manufacturing plants to the distribution centre plus the total cost to deliver products from the distribution centre to the three customers.

A template as presented in Fig. 13.3 can be constructed in Excel™. Excel has been selected due to the fact that any model developed using this software package can be accessed by users with access to Excel, as well as this format being easily transferable to digital content for teaching.

The *input values* are observed as the cost of transporting one unit from the two manufacturers (M1 and M2) to the distribution centre (DC) in the first table, whereas, featuring in the second table, we have the cost of transporting products from the distribution centre to the three customers. The second part of the template (see Fig. 13.3) represents the setting of the variables within the following two tables from cell C10 to C11 for the total number of products delivered from the two manufacturing plants to DC. From C16 to E16 the second set of variables are set. These will represent the total number of products sent from the DC to the three retailers. Readers should note that any of the numerical values capture

	A	B	C	D	E	F
1		cost	DC			
2		M1	15			
3		M2	16			
4						
5		cost	C1	C2	C3	
6		DC1	13	12	14	
7						
8						
9			DC	Products sent to DCs		Capacity
10		M1		0	<=	500
11		M2		0	<=	330
12		Products delivered to the DC	0			
13						
14						
15			C1	C2	C3	Products delivered from the DC
16		DC				0
17		Products delivered	0	0	0	
18			>=	>=	>=	
19		Demand	212	358	249	
20						
21						
22	Total cost	0				

Fig. 13.3 Transhipment simulation game example template

in Fig. 13.3 can change, if conditions within the real example change. But these are values that should not be manually changed during the simulation model run, unless indicated by the tutor presenting this game.

Setting constraints set 1 in Excel requires to use of the following formulas:

In cells:
D10 = SUM(C10:C10);
D11 = SUM(C11:C11);
This is then followed by the condition:
D10 <= F10 and
D11 <= F11

Setting constraints set 2 in Excel requires to use of the following formulas:
C17 >= C19
D17 >= D19
E17 >= E19

Setting constraints set 3 in Excel requires to use of the following formulas: in cell C12 = SUM(C10:C11).
In cell F16 = SUM(C16:E16)
Then we will have
C12 = F16
The objective function is to be set in B22 = SUMPRODUCT (C2:C3,C10:C11) + SUMPRODUCT(C6:E6,C16:E16)

All these formulas are to be inserted in Solver™ and Add-In software in Excel as indicated in Fig. 13.4. In the Set Objective, we have the formula inserted in $B$22, that required to be minimised as we are looking to minimise the total transportation cost. Under the section by changing variables cells select $C$10:$C$11,$C$16:$E$16. In total, we can note that there are five cells selected. Within the section Subject to the Constraints the three sets of constraints are inserted. They are as follows:
Constraints Set 1: $D$10:$D$11 < = $F$10:$F$11.
Constraints Set 2: $C$17:$E$17 > = $C$19:$E$19.
Constraints Set 3: $C$12 = $F$16.

By solving this example, it can be noted the results as indicated in Fig. 13.5. Following from the set expected output data, the following results have been obtained:

The quantity to be delivered from each manufacturing plants to the distribution centre is displayed in C10 and C11. It can be noted in this case that the entire number of products allocated to the M1 (500 units) have been delivered to the DC, therefore the entire capacity has been used. For the second delivery we have 319 units delivered from M2 to DC, therefore there are no products left in the DC. Left-over products offer another opportunity for discussion. If these products are not being

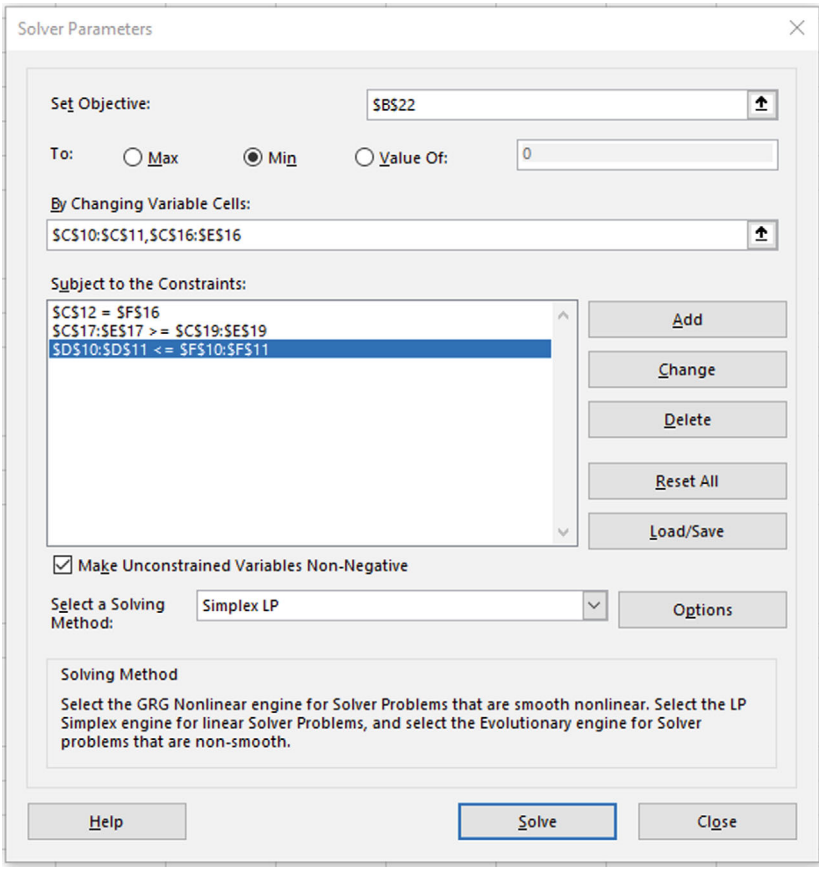

Fig. 13.4 Transshipment simulation game example—solver

delivered within the next opportunity for delivery, there are implications for both cost and storage space.

The quantity of products delivered from the distribution centre to each customer can be noted in cells C16 to E16, where is evident that the quantities deliver do meet the customer demand are met in full. Numerically, this was expected, as the total capacity available for delivery is higher than the total demand. If demand was higher than the total capacity, it would result in failure to meet the customer demand in full. It should also

	A	B	C	D	E	F
1		cost	DC			
2		M1	15			
3		M2	16			
4						
5		cost	C1	C2	C3	
6		DC1	13	12	14	
7						
8						
9			DC	Products sent to DCs		Capacity
10		M1	500	500	<=	500
11		M2	319	319	<=	330
12		Products delivered to the DC	819			
13						
14						
15			C1	C2	C3	Products delivered from the DC
16		DC	212	358	249	819
17		Products delivered	212	358	249	
18			>=	>=	>=	
19		Demand	212	358	249	
20						
21						
22	Total cost	23142				

Fig. 13.5 Transshipment simulation game example—solution

be noted that products from DC are transported to C1, C2 and C3. In this case we look at what will happen in the case of one customer looking to increase their demand by 50%.

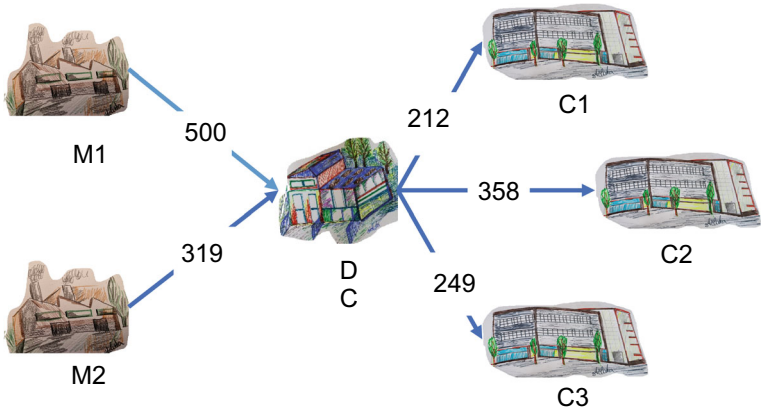

Fig. 13.6 Simulation game example: transshipment solution

The total transportation cost for the entire activity is resulted in a value of £23,142. The total cost to deliver products from the manufacturing plants to the DC is £12,604 and from the DC to customers is £10,538.

The distribution network can be represented as in Fig. 13.6. which will indicate the distribution plan that will reach the minimum transportation cost. It should be noted that the network is currently well balanced, however, depending on the capacity of the transport, and a discussion of cost and allocation of resources could take place at this point.

Discussion Points

This type of simulation example can be used in various applications in the distribution of goods for operations that are local, as well as global. Different modes of transport can be considered when this type of operation takes place, such as air, rail, maritime and road. The cost of transport differs based on the mode of transport selected, but this will still generate various and productive discussions when students engage with this model. Multi-model transportation can also be combined in this model where the first part of the route (from any of the manufacturing plants or from both manufacturing plants to the distribution centre) could be considered, for example, by rail and the second part (from the DC to customers) to be considered by road, for example. Any other combination can be

approached; a change to the mode of transport will still have an impact to the transportation cost (see input data, Fig 13.3).

Similar examples of transshipment models can be found in books from Powell and Baker (2011), Taylor (2016), Evans (2016) and Baker (2015). They can be then transformed to form part of a simulation game used for digital teaching.

A number of other variations can be considered. These could include, for example, the number of facilities forming the network: products distributed from three different manufacturing plants to two distribution centres to six retailers (see Tipi, 2021a). However, each entity in the supply chain may have particular characteristics in relation to receiving products, for example, restrictive capacity or particular products to be delivered to a particular customer.

One other change that could be considered is the number of products that are being delivered from these manufacturing plants. The model in its current format can be developed to include, for example, the delivery of two products. In this case, the mathematical model will follow the same set of equations adapted to the new characteristics. The same template for the model developed in Excel™ can be used and adapted to the new characteristics of the models, for example, the new number of products to be delivered.

These types of variation offer very good opportunity for discussion and potential to capture them in teaching material for formative and/or summative assessment.

This simulation game works as well when used for assessment. The structure of the supply chain (number of organisations that form the chain, number of products, their routing) as well as the numerical data in the form of input data can change and this will create the option for an open case study approach as introduced in Tipi (2014). The open case study approach means students can use their own design for the supply chain. In this model, students can select the level of modelling complexity they prefer to work with and have full interaction in modifying the simulation game as they prefer. This allows students to select their supply chain case for investigation from an environment they are familiar with in order to test the knowledge studied in the module, further linking theory with practice (Williams et al., 2021). Many students will normally choose a case from their experience, or cases they are familiar with from literature, and

via this approach they are able to engage in deep learning, learning that has meaning to them and therefore develops the desire to learn (Bloxham, 2014).

Conclusion

As this chapter has argued, simulation games carry a number of benefits when used in digital teaching; however, tutors and students will also need to be aware of their drawbacks.

Developing simulation games that allow tutors to align them with the set learning objectives and learning needs of the module brings added benefits to their use and implementation. With the methodology outlined in this chapter, it is paramount that consideration is given to the analysis of current learning needs in relation to other topics presented in the teaching material. In this way, the development of such a simulation game aligns with Kolb's learning cycle (Kolb, 1984). The analysis and implementation of the simulation game is developed together with the post-implementation stage.

Tips for Teaching Designers to Develop Simulation Games

Developing simulation games for teaching can bring several rewards as it can offer an interactive and engaging way to facilitate learning. This can be directly tailored to the learning objectives of the teaching material. They can also be modified to meet the needs of any new changes required in the teaching material.

Some tips to consider when developing simulation games are:

- Start with following the stages presented in Fig. 13.1. By evaluating learning needs consider the characteristics, preferences and prior knowledge of students who will be taking the class. A simulation game that is tailored to students' needs and learning styles could enhance engagement with theories in the area of operations management and support engagement with complex analytical content.
- A simulation game should allow for various degrees of flexibility. Flexibility in design that would allow for a range of numerical changes (changes to the input data), changes to the number of organisations forming part of the chain, changes to the number of

products to be considered for evaluation and changes to the routing of products.
- For developing a computer-based simulation for digital teaching, the platform, technology or tools used to develop the simulation games will need to be based on factors such as ease of use, accessibility on different platforms and compatibility with the learning environment.
- The scenarios covered by the simulation game will need to be realistic and reflect real-world situations. The challenges captured in the developed model for a simulation game together with the level of user interactions will bring opportunities for decision-making and these will support learners with critical thinking and problem-solving skills.
- There is the opportunity for learners to engage in a form of providing feedback (direct or indirect). Learning developers will need to regularly review the developed simulation games. This is to incorporate the feedback provided by students and tutors, as well as update the model based on any changes due to updates in learning objectives.
- Tutors may consider developing additional resources and guidance that support learners to engage with the simulation games. This is particularly important for games developed for asynchronous digital teaching.
- Incorporate a mechanism to assess students' progress and understanding of using the simulation games in the context of module learnings outcomes.
- Consider developing the simulation game to be used for assessment.

Discussion Points

- What other simulation games in the area of supply chain are most suitable for digital teaching?
- What happens with the proposed simulation game when the structure of the supply chain changes?
- What needs to change in the proposed simulation game when customer demand increases with 50%?

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CHAPTER 14

The Futures of Digital Learning and Teaching

Andrew Gilbert and Jacqueline Baxter

Back to the Future

The Open University was conceived and born into an analogue world at the end of the 1960s, but its vision and mission would not be more fully realised until the advent of the digital age. The university's first Chancellor, Geoffrey Crowther, delivered a speech on 23 July 1969 to mark the presentation of the OU's Royal Charter in which he said:

> We are open, first, as to *people*. […] The first, and most urgent, task before us is to cater for the many thousands of people, fully capable of a higher education, who, for one reason or another, do not get it, or do not get as

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> much of it as they can turn to advantage, or as they discover, sometimes too late, that they need. Only in recent years have we come to realize how many such people there are, and how large are the gaps in educational provision through which they can fall. The existing system, for all its expansion, misses and leaves aside a great unused reservoir of human talent and potential.
> […]
> We are open as to *methods*. […] The world is caught in a Communications Revolution…Every new form of human communication will be examined to see how it can be used to raise and broaden the level of human understanding…
>
> (Ferguson, 1975, pp. 19–20, his emphasis)

Crowther's quote comes from *The Open University from Within* by Professor John Ferguson, who was appointed the first Dean and Director Studies in Arts at the OU in 1969. When Ferguson was writing his book in 1975, the OU was using Computer-Marked Assignments on a massive scale—258,417 were attempted in 1972—as part of its assessment strategy (Ferguson, 1975, p. 117). In stark contrast to the ubiquity of the computer in the modern workplace, he spoke throughout his book of 'the computer', just one in the whole university, which was 'an ICL 1903T computer offering 96K core of storage' (Ferguson, p. 121). Ferguson's book is too early to talk about digital learning and teaching as such, but it does cover the delivery of teaching through print, correspondence and television methods, thereby addressing an analogous question which has run through this volume: what is digital education *for*? We argue that the point of digital education is essentially to bring together an inclusive vision for participation in HE (openness to *people*) with digital technology as the enabler of education on a scale not otherwise attainable (openness to *methods*), creating opportunities for those who would not otherwise have been able to experience the transformative power of learning. In that sense, this vision of the future from the 1960s is no different to that from the perspective of 2025, and by critically examining creative uses of the digital 'form of human communication', this book is true to the commitment Crowther made in 1969.

When Callaghan et al. (2018) wrote their concluding chapter to a predecessor volume to this one, they chose to frame their discussion in the context of the neoliberal turn in the marketisation of the public sphere, including the higher education sector. Seven years later, the contributions from the chapters in this book come at a critical juncture in HE globally,

with the acceleration of digital and information technology enhancing tensions between paradigms of scarcity and abundance. These paradigms are increasingly apparent, and their effects are widely felt. The continuity and stability of universities over time has rested on their ability to control scarce resources across the three areas 'of *access* (class size, selectivity), of *instruction* (faculty experts, educational support), and of *credentials* (university degrees, university reputations)' (Smith, 2023, p. X (preface), his emphasis). Readers may have their own experiences of the effects of this abundance and scarcity, perhaps an (un)successful attempt to be admitted to an elite university or becoming credentialled through the award of a degree. When one of the authors (Gilbert) was an undergraduate law student in the 1990s he competed with other students for access to physical copies of law reports. Reports of leading cases would be very well thumbed, sometimes containing the marginalia of students long since graduated, whereas others would be absent altogether—selfishly torn out. Legal skills back then involved not just how to read a case once you had found it, but how to establish its existence and then physically locate it in a room filled with 100,000 books. The digital world—being a world of abundance, no, of hyper-abundance—requires different skills and presents different opportunities and challenges. In critically exploring the creativity which can be unleashed through digital learning and teaching through the chapters of this book, what themes have emerged?

Challenges and Opportunities for Business and Law Schools: Theoretical Threads and Emerging Themes

This book sought to provide insights into some of the challenges and opportunities engendered by the transition to digital learning in higher education, with a focus on business and law, driven by the disruption presented by the global pandemic and rapid technological advancements. As it has illustrated, those challenges are not insignificant, nor are they unique to a particular field, but contain a number of intersections between disciplines. For example, the isolation that students face in digital learning, which features in Chapters 8 and 9, also appears in other disciplines (see, for example, Cleveland-Innes & Campbell, 2012); however, carrying out investigations in a specific discipline helps to identify how challenges affect particular groups of students. It also helps practitioners

working in such fields relate more closely to the issues (as discussed in Chapter 2, this volume). In this section of our final chapter, we examine the key themes emerging from the book and discuss them in light of the future of digital learning in business and law.

As Chapter 2 reports, in business, law and police education, evidence-based practice is not a given. There are those that embrace the idea of examining pedagogies and teaching practices in more depth, but equally, those for whom this type of research goes against what they believe about their own teaching, that experience and tacit knowledge are more valuable than research. This is not of course unique to SoTL: many practitioners embark on business qualifications and find that the theory developed from empirical work to be either obvious or counterintuitive. As a result, they reject it and continue doing as they have always done, creating somewhat internecine conflicts within academic circles. This can be ignominious to innovation as well as student learning. Working together with colleagues on a known issue within teaching and learning is a powerful learning experience in itself, in which assumptions about what works are questioned. But equally, working with others on the type of projects this book includes, can, for the first time for many, offer an opportunity to air some of the tacit knowledge around teaching and learning; opening up a Pandora's box of teaching knowledge, and revealing the argosy of pedagogy within. This is both motivating and productive, as it permits teachers to question taken-for-granted knowledge and pedagogies imposed upon them by the prevailing regime. This also pushes back against the ideal, often perpetuated by institutions, of some empyreal teaching reality that is in effect very difficult to achieve. We hope that the medium of this book, being a collection of scholarly work produced by practitioners, reinforces the message that SoTL should sit at the heart of a vibrant academic community.

We have also explored how the transition to digital learning in business and law education has implications for equity, accessibility and the preparation of graduates to contribute effectively to society. Institutions must navigate the balance between innovation and maintaining high-quality education that prepares students for the complexities of the modern world. The future of business and law education in the digital age will depend on the ability of educators and institutions to adapt to changing technologies and societal needs while maintaining a commitment to educational excellence and fairness. As the twentieth-century river of tertiary education built on a model of scarcity flows out into the

twenty-first-century sea of abundance (Smith, 2023), difficult decisions will need to be made where the two waters meet to find ways of delivering learning which is sustainable in both financial and environmental terms.

This book illustrates that the shift to digital offers opportunities for innovation in teaching and learning, including the *potential* to enhance accessibility and flexibility for students. However, realising that potential is dependent on large scale policy changes to close the digital gap, as Jacqueline Baxter and Matthew Hinton report (Chapter 4, this volume). It is clearly not enough to expect all students to have access to working hardware and space for studying, without considerable government intervention that enables them to do so. Baxter and Hinton argue for digital provision as a human right, and the discussion in the chapter reflects the increasing disadvantage that digital poverty creates. Relatedly, Hardie, Ryan and Baxter (Chapter 3) discuss GAI's potential (or promise?) to shift paradigms across education, yet there is also scope for differential experiences of students due to algorithmic bias in large language models, and the most powerful tools sitting behind paywalls.

A related theme concerns student wellbeing, including mental health and belonging. The pandemic has directly and indirectly led to a crisis in student wellbeing in HE, particularly in relation to first-year students (Jones et al., 2020), and this is well documented in the fields of business and law (Akram et al., 2022). These issues are often compounded in the digital world (Jones et al., 2023), in which, as Carol Edwards and Liz Hardie report (Chapter 8 this volume), it is difficult to gain a sense of belonging to a module, course or faculty. As they conclude, learning design has a key role to play in building academic communities, along with events that promote collaboration between students. Their work also concludes that GAI may have a part to play in supporting students but are mindful that this may have some unintended consequences. Although we face these challenges in contexts which are often novel, seminal work on learning communities such as that of Vincent Tinto can still provide insights to inform our practice today:

> Institutions of higher education are not unlike other human communities, and the process of educational departure is not substantially different from the other processes of leaving which occur among human communities generally. In both instances, departure mirrors the absence of social and intellectual integration into or membership in community life and of the

> social support such integration provides. An institution's capacity to retain students is directly related to its ability to reach out and make contact with students and integrate them into the social and intellectual fabric of institutional life. It hinges on the establishment of a healthy, caring educational environment which enables all individuals, not just some, to find a niche in one or more of the many social and intellectual communities of the institution.
> (Tinto, 1993, p. 204)

The student experience is mediated through the interplay of a complex array of intersecting factors, some of which were discussed in Chapter 8 (on belonging and wellbeing), Chapter 9 (on ethnicity) and Chapter 10 (on care experience), with all those chapters driven by a concern that where someone starts in life should not determine—at least negatively—where they finish. It is right that universities, as engines of social mobility through education, should play a role in overcoming systemic disadvantage, but there are limits to what they could and should do. For example, the last decade or so has seen UK universities expand their mental health support in spite of a substantial decline in the unit of resource for domestic students. Although this wellbeing support is laudable, it raises questions around the creep of the mission of HE and the appropriate division of labour between universities and public health services (McVitty, 2024). While this book champions the use of SoTL to provide course-level insights which could lead to greater equity in education, we should not regard this as a substitute for the role of universities to challenge structural disadvantage, speaking truth to power without fear or favour through macro-level research and critique. In support of this view of the university as a voice of conscience, Connell writes, 'It is a university's job to serve its society, not to agree with it' (2019, p. 173).

Another emerging theme within the volume has been the relationship between technology, pedagogy and practice. Digital learning and teaching is, of necessity, enabled by technology and the more intertwined it becomes with our practice, the more reliant we are on its platforms and programmes. Some of the technology may be bespoke to, and even owned by, HEIs but the majority of it will be the property of companies such as Microsoft™, Adobe™, Instructure™, OpenAI™ and Meta™. The hegemonic domination of HE by such tech giants gives rise to concerns around technological determinism exacerbated by the pandemic. In particular, concerns relate to the possibility that pedagogy

is going to be increasingly driven by technology rather than taking a dialogic approach whereby our theory and practice, and—to the extent it is possible—the technology itself, are shaped through an understanding of the potential and limitations of each. Nicoleta Tipi's chapter looking at simulation games (Chapter 13) demonstrates how the interests of software companies and educators can align synergistically to produce powerful learning tools. GAI will become more deeply integrated into all aspects of higher education, providing personalised learning experiences, automating administrative tasks and enhancing research capabilities. Increasingly, AI 'tutors' will offer customised support to students, adaptive learning platforms will adjust content delivery based on individual learning styles, and AI-driven analytics will help educators identify and address learning gaps in real time. While a future of AI-augmented teaching and learning could do much to address some of the issues raised in this book, related concerns around ethical use, data privacy and the digital divide will also require effective solutions.

The tension between institution-led innovations in teaching and learning, versus the reality of how students actually engage with these innovations, appears as a leitmotif throughout a number of chapters. As Chapter 4 reports, the incursion of Big Tech into all sectors of education during the pandemic was substantial and, as a trend, has shown no signs of slowing since then. The plethora of new digital tools can be overwhelming for students and their tutors, and the urge to use them without real pedagogical rationale can prove a chimera for real learning. In Chapter 6, Alessandro Saroli illustrates this when he shows that despite the fact that skills activities are embedded throughout a programme, they are not likely to yield a great deal of learning if tutors do not factor how students are using, or not using them, in their deliberations on learning design. This theme also occurs within Sarah Henderson and Ben Trupia-Melluish's chapter (Chapter 5, this volume). Their research points out that activities such as forums need to be designed in such a way as to ensure students find them valuable, even if difficult to engage with. They also raise the important point that students need differentiated experiences, so learning materials need to cater for this. This may be obvious in the face-to-face classroom, but online it is surprising how often learning designers favour a one-size-fits-all approach that does not always suit the least or most able.

As digital learning continues to evolve, there should be a growing emphasis on ethical considerations and sustainability. An ethical and

sustainable future would prioritise the development of open-source educational resources, energy-efficient digital infrastructure, and policies that ensure equitable access to technology. It would focus on creating a digital learning environment that is not only effective and engaging but also responsible and inclusive, addressing the digital divide and promoting sustainable practices. We have seen a number of examples in this book of how digital media are delivering more equitable and sustainable learning and teaching, whether it is educating police officers through a distance-learning apprenticeship model (Chapter 7), improving policing practice through reflective assessment (Chapter 12) or developing employability skills and access to justice through a criminal justice clinic (Chapter 11). As virtual reality (VR) and augmented reality (AR) technologies become embedded, they will increasingly provide immersive learning experiences that simulate real-world environments and complex scenarios not easily replicated in traditional classrooms. For law and business schools this might involve learning advocacy skills in a virtual courtroom or conducting a business negotiation or sales pitch, broadening access to opportunities and reducing the resource demands of in-person events. This has enormous potential to enhance university offerings in relation to work-based learning, provided that students are able to access the technology.

The pandemic showed how digital technology can facilitate the transition from in-person to online teaching and, while the quality of the experience was uneven, that such a transition can take place practically overnight in contrast to the typically slow pace of many HE change programmes. One effect of the shift to online was that education continued for international students despite the inability to travel across borders. As the world faces the climate change imperative to reduce carbon emissions, digital learning and teaching could—and arguably should—play a role through reducing global flows of students. However, with international students being central to the financial models of HE in more prosperous nations, difficult decisions will need to be made about financial sustainability versus sustainability in an environmental sense (McCollum, 2023). For the sake of balance, however, it is important to remember that digital education is far from carbon neutral due to, for example, the precious metals involved in computer hardware production and the energy requirements of server farms (Jones, 2018).

Having identified the theoretical threads and emerging themes from the preceding chapters, in the next section we go on to consider what research might needed to enable progress in digital learning and teaching.

Future Research Directions

It perhaps goes without saying that business and legal education is now better researched than ever but the increasing complexity of higher education in the digital and information age requires fresh insights from scholarship to tackle new and existing challenges. There is also evidence that our research power is not where it needs to be to enable us to deal with those challenges effectively. Leading legal educationalist, Paul Maharg, recently wrote of legal education research:

> There is a significant lack of longitudinal studies, very few ongoing and sustained data studies, no meta-reviews. Almost no systematic reviews of research literature are produced, few policy paper series, little in the way of a stream of historical literature on legal education that feeds into current developments and future innovation.
> (Maharg, 2020, p. 271)

Triangulation from the Research Excellence Framework (REF) exercises in 2014 and 2021 raises related concerns about the overall health of scholarship produced by UK law schools, with the 2014 Law sub-panel stating it 'was pleased to receive submissions relating to legal education but the methodological rigour and significance exhibited by some of these outputs was uneven' (Research Excellence Framework, 2015, p. 71). When the exercise was conducted seven years later, the sub-panel observed that it had received fewer than expected submissions in the field of legal educations and 'as noted by the REF 2014 sub-panel, the methodological rigour and significance exhibited by some of these outputs remains uneven' (Research Excellence Framework, 2022, p. 108). The assessment of business education research raised similar concerns. In 2014, there was 'a small but significant stream of work in accounting education' (Research Excellence Framework, 2015, p. 59), although far fewer than expected submissions in management education, with 'a surprising variability in quality in terms of originality, significance and rigour', and:

> Outputs also continued to lack appropriate theoretical grounding and in some cases failed to build on well-established previous research in the field. This lack of connection makes it difficult to take the field forward. Methodologically, the field concentrates predominantly on the case method, relying on the richness of description to carry the ideas to the reader, but from which it is arguably more difficult to validate and theorise.
> (Research Excellence Framework, 2015, p. 64)

There was less discrete discussion of SoTL by the 2021 Business Subpanel but it did note an increase in outputs in management education and that world leading or internationally excellent work was characterised by being substantially grounded in the literature and contributing to that literature through empirical findings (Research Excellence Framework, 2022). As we find ourselves at this critical juncture, do we have enough scholarship, or enough of the right scholarship, to help us navigate the future/s of our disciplines of business and law? We suggest that areas for further research might be grouped into the following themes that capture the breadth of challenges and opportunities in digital teaching and learning within business and law.

First, there is work to do around integrating technology in education to better understand the ethical and practical implications of generative AI (GAI), specifically the balance between leveraging GAI tools for educational innovation, maintaining academic integrity and equity and fostering engagement and inclusion. Given high levels of interest and feeling which often accompany the advent of new technology (witness the furore surrounding ChatGPT's public release in November 2022), care needs to be taken to avoid technological determinism in terms of technology-driving pedagogy. Scholarship has a central role to play in evaluating how technology can best enhance learning and teaching.

Second, further work is needed in relation to addressing digital inequities, including the impact of, and policy responses to, digital poverty. A majority of students in higher education are currently from Generation Z (those born between the mid-1990s and the early 2010s) and are often assumed to be 'digital natives' (Prensky, 2001) given the ubiquity of digital technology in their lives since birth, thereby making them completely au fait with all forms of such technology. This assumption, however, should be treated with caution as research shows that competence in personal digital technology use does not guarantee competent use in an educational context (e.g., Janschitz & Penker, 2022).

Moreover, competence among students—i.e., a digital divide—varies according to socioeconomic factors such as income, geographic location, age and disability (Baxter & Hinton, Chapter 4). But we should not stop at digital competence, as Blaj-Ward (2020) has argued we should also aim to instil in our students values of digital citizenship, a 'process of learning and becoming', where students actively participate in collaborative online communities.

If many of our students are digital natives then it can also be said that many of their teachers—those from Generation X and older Millenials/ Generation Y—will be 'digital immigrants' who were born in the pre-digital age (Prensky, 2001). Being non-natives, these immigrants struggle to understand the digital world and their ability to communicate with natives is hampered through language barriers, with valuable information being lost in translation. These limitations can also mean that digital immigrants can labour under a flawed assumption:

> Digital Immigrant teachers assume that learners are the same as they have always been, and that the same methods that worked for the teachers when they were students will work for their students now. ***But that assumption is no longer valid***. Today's learners are *different*.
>
> (Prensky, 2001, p. 3, his emphasis)

Being careful not to rely on invalid assumptions about learners, we need more understanding of not just *how* the technology can be used but also *why* using it can potentially enhance learning beyond simply because it aligns with students' use of technology through familiarity and habituation (Szymkowiak et al., 2021). Given evidence of cognitive changes produced by lifelong student engagement with the technology itself such as reduced attention, impaired social intelligence and brain development (Small et al., 2020), do we know what this means for future learning design? On the other hand, benefits have been observed from the use of digital tools in cognitive training, particularly in older people, which may also be a fertile area of investigation (Small et al., 2020).

Finally, further rich insights could be gleaned from scholarship into enhancing employability and skills development through digital education, including exploration of collaborative partnerships and reflective practice in professional education.

A Future Revolution?

Most people can only say what they see, whereas visionaries are marked out by their ability to see what does not yet exist. For example, the influential Robbins Report into higher education, when discussing 'correspondence courses' as a way to address the demand of the generation of postwar baby boomers who were about to come of age, predicted that: 'We think it likely that television, as a technique of educational communication, may be found to have considerable potential value as an ancillary both for part-time and correspondence study' (Robbins, 1963, p. 262). Impressively prescient as this was, prophesying the educational broadcasting relationship between the OU and the BBC, the committee's vision only went as far as the present technology permitted. By contrast, the futures imagined by true visionaries contain technologies which have not yet been invented, and those visionaries are better placed than us to predict what the future may hold. However, the future is not just shaped by technological advances but also by the choices we make. In her book, *The Good University*, Raewyn Connell imagines the futures of universities and writes about 'the choice of futures' (Connell, 2019, p. 168). For her, a dystopian future is one which gives full expression to the marketisation of higher education:

> In this future all universities become proper firms, owned by investors and managers. All operations work is outsourced, and all of the teachers are sessional. Staff are appointed by managers. Curricula are trimmed back to fee-earning vocational programmes. Teaching is done online by the cheapest labour available in global markets, under automated surveillance. The most profitable universities have no campuses at all, just brands, managers, and online systems.
> (Connell, p. 168)

Digital technology would, of course, make such a vision realisable, but that is far from the end to which the authors of this volume would wish digital technology to be deployed. Rather, Connell's vision of the 'good university' is one which is democratic, engaged, truthful, creative and sustainable. Elements of those values pervade the chapters of this book, but they are just a handful of stories from one university. As the planet faces unprecedented challenges, the question is not 'do good universities have a future?' (surely they do) but 'does the future have good universities?'. The answer to the latter question lies partly with how each of us

who work in such institutions embodies and enacts Connell's vision: the problems are global but the solutions are local.

Staying with Connell's 'engaged' value, a question which pervades this work—sometimes tackled head on and other times bubbling below the surface—has been, 'Can digital pedagogy be engaged pedagogy?' bell hooks uses the term 'engaged pedagogy' to capture an education which is progressive and holistic, emphasising the wellbeing of teacher and student. For hooks, that means a liberatory education driven by 'the conviction that one could teach without reinforcing existing systems of domination' (hooks, 1994, p. 18). It also means one that 'necessarily values student expression' (p. 20), includes knowledge that is meaningful and connects their learning with their life experiences. In spite of the neoliberal drag towards higher education's value being seen chiefly as an instrument of economic policy, we assert the inherent good of education as a means of human flourishing.

While a liberatory education in the broad sense of an experience which is meaningful and transformative underpins the practice of the contributors to this book, we are concerned about the impact of generative artificial intelligence on that experience. While GAI can augment our abilities by completing brain-saving and time-saving editing tasks, freeing up human cognitive power to do higher level critical work, it also significantly diminishes human involvement in the process of knowledge creation. As such, GAI poses fundamental challenges to learning design based on a Vygotskyian sociocultural theory of learning, where learners develop cognitively through social interaction (Mørch & Andersen, 2023), as well as on Piaget's development stage theory. While it has been subjected to extensive critique (e.g., Smith, 1996), the core of Piaget's theory now seems axiomatic: cognition develops in stages, from simple infant reflexes through to the highest levels of creative and critical thought. Bloom's taxonomy uses a similar developmental model which charts the cognitive domain, from simply remembering information to the learner becoming a critical thinker and creating knowledge for themselves. If students increasingly rely on GAI to perform lower order cognitive tasks and do not adequately acquire that ability themselves, then how will teachers be able to help them learn higher level critical and creative thought? From our current perspective at the foothills of this new technology, it is not clear how this path between GAI and effective learning and teaching will be navigated but somehow it will have to be.

Despite the challenges posed by the impact of digital technology on learning and teaching in business and law schools, there is much cause for celebration and optimism. This chapter began by considering a twentieth-century vision to provide a different model—an open model—of higher education to enable more people to experience the transformative power of learning. Smith identifies a twenty-first-century opportunity with which to draw this discussion to a close:

> Digital technologies give us an opportunity to create new systems of education based on abundance rather than scarcity – a revolutionary shift. (Smith, 2023, p. xxii)

Anyone want to join a revolution?

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