INTRODUCING
Multidisciplinary Micro-credentialing

RETHINKING LEARNING AND DEVELOPMENT FOR HIGHER EDUCATION AND INDUSTRY

EDITED BY
Chamila Subasinghe
Beena Giridharan

Introducing Multidisciplinary Micro-credentialing

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Introducing Multidisciplinary Micro-credentialing: Rethinking Learning and Development for Higher Education and Industry

EDITED BY

CHAMILA SUBASINGHE
Curtin University, Australia

AND

BEENA GIRIDHARAN
Curtin University, Malaysia

United Kingdom – North America – Japan – India – Malaysia – China

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INVESTOR IN PEOPLE

Silent supporters of our survival:
parents, siblings, spouses, offspring, and well-wishers

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List of Abbreviations

Abbreviation	Definition
4IR	Fourth Industrial Revolution
AI	Artificial Intelligence
AIB	Australian Institute of Building
AIB#	Australian Institute of Building Learning Outcome Number
AIQS	Australian Institute of Quantity Surveyors
AIQS#	Australian Institute of Quantity Surveyors Competency Standard Number
AIQSBS#	Australian Institute of Quantity Surveyors Basic Skill Learning Outcome Number
AMS	Accreditation Management System
AQF	Australian Qualifications Framework
BappSc	Bachelor of Applied Science
BIM	Building information Modelling
BS#	Basic Skill Learning Outcome Number
BSc	Bachelor of Science
CAANZ	Chartered Accountants of Australia & New Zealand
CAD	Computer-aided Design
CE	Continuing Education
CIOB	Chartered Institute of Building
CLO	Tertiary Institution Learning Outcome
CLO#	Tertiary Institution Learning Outcome Number
CM	Construction Management
CME	Construction Management (and Economics) Online Unit
CME#	Construction Management (and Economics) Online Unit Number
CPD	Continuous Professional Development
CPUs	Central Processing Units

CRICOS	Commonwealth Register of Institutions and Courses for Overseas Students
EE	Executive Education
ePortfolios	electronic portfolios of academic work completed
EQUIS	European (Foundation for Management Development) Quality Improvement System
EUCO	European Council
F2F	Face-to-Face
FAQ	Frequently Asked Questions
GPA	Grade Point Average
HE	Higher Education
HR	Human Resources
HRTech	Human Resources Technology
IE	International Enrolments
IHL	Institutions of Higher Learning
IR	Industrial/Human Relations
ISCA	Institute of Singapore Chartered Accountants
ISCED	International Standard Classification of Education
ISCED	International Standard Classification of Education Qualifications
IT	Information Technology
L&D	Learning and Development
Mc	Micro-credentialing
MCAM	Micro-credential Attributes Model
Md	Multidisciplinary Perspectives
MdMc	Multidisciplinary Micro-credentialing
MicroCred	Micro-credentials
MMA	Model of MC Attributes
MOOC	Massive Open Online Courses
NACE	National Association of Colleges and Employers
OECD	Organisation for Economic Co-operation and Development
OHS	Occupational Health and Safety
OUA	Open University Australia
PD	Professional Development
QA	Quality Assurance

QILT	Quality Indicators for Learning and Teaching (Australia)
QS	Quacquarelli Symonds (QS) World University Rankings
RPL	Recognition of prior learning
SSG	SkillsFuture Singapore
TAFE	Technical and Further Education
TEQSA	Tertiary Education Quality and Standards Agency
THE	Times Higher Education World University Rankings
TRI	Travel Restricted International students
TVET	Tertiary Vocational Education and Training
ULO	Unit Learning Outcome
UNESCO	United Nations Educational, Scientific and Cultural Organization
VET	Vocational Education and Training
WSS	Workforce Singapore
WURI	World Universities with Real Impact

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About the Editors

Chamila Suasinghe, PhD, two decades ago, started his professional career as a chartered architect, and a few years later, he joined higher education academia as a clinical professional fellow. His full-fledged academic career was triggered by receiving a principal Fulbright scholarship to the USA in 2006. It extended into full-time teaching and research in many continents, including Asia, Europe, North America, and Australia. During this journey, he had first-hand experience in inter-cultural and inter-contextual nuances of higher education shift from service to servitude. Although he publishes on diverse topics, his work has dual implications: design activism and pedagogy innovation. As a Senior Fellow of Higher Education Academy UK and a Fellow of Higher Education Research and Development Society of Australasia, he consistently innovated thinking around adding value to higher education credentialing via upskilling credential seekers with enterprise skills. Apart from his academic role, he actively assists professional development activities for early career educators in the region as the Director of Higher Education Teaching and Learning Association for Oceania.

Beena Giridharan is a Higher Degree by Research (HDR) Supervisor at Curtin University and a Fellow of the prestigious Curtin Academy, Australia. She served two terms as Deputy Pro-Vice-Chancellor (2016–2021) and two terms as Dean of Learning and Teaching (2011–2016 and 2021–2022) at Curtin University, Malaysia. As a Fellow of the Higher Education Research and Development Society of Australasia (HERDSA) since 2006, she mentors aspiring HERDSA fellows and is a Panel Assessor for HERDSA fellowship portfolios. She is also the Country Director (Malaysia) for the HETL since 2019. She won the 2006 Carrick Australian Award for University Teaching, and the 2006 Curtin University, Australia, Excellence in Teaching and Innovation award, and was a Visiting Professor at the Virginia Commonwealth University, Richmond, Virginia, USA. She is an Associate Editor for the *IAFOR Journal of Education*, USA, and the *Journal of Literature and Librarianship*, USA.

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About the Contributors

Peter Bullen is a Former Senior Lecturer and Head of Department of Construction Management in School of Design and the Built Environment (D.B.E.) at Curtin University, Bentley. He has contributed to research on the topics of adaptive reuse, sustainability, sustainable design, built environment, and industrial heritage. He completed his PhD in Sustainability and Adaptive Reuse of Buildings in the Division of Resources and Engineering at Curtin University, Bentley. His areas of expertise involve Construction and Project Management, Site Safety, Building Technology, Adaptive Reuse, Sustainability, Sustainable Design, Built Environment, and Industrial Heritage and more in related areas.

Barry Cooper-Cooke, a chartered builder, has extensive experience in the construction industry and gained over 30 years in varying roles in the UK and Australia, spanning residential, commercial, and off-site construction. In late 2014, he transitioned into the world of academia first as a Sessional Lecturer and then in 2015, taking up a full-time position lecturing in Construction Management to undergraduate students for seven years. He was a member of the Organising Committee for the 42nd Australasian Universities Building Education Association Conference 2018 in Singapore. He co-authored several research papers, and in 2020 he was awarded an Emerald Literati award for a highly commended paper. He returned to the coalface of the construction industry in 2023.

Lillian Koh Noi Keng, PhD, is a Director, Center for Research & Innovation, NTUitive, a spinoff of Nanyang Technological University, Singapore. She is also CEO of the Fintech Academy where she champions financial literacy and business education in Singapore. She more recently co-authored the book, *Singapore: The Fintech Nation* which recounts the recent history of the Fintech industry in Singapore.

Kevin Kupietz is the Chair for the Elizabeth City State University Department of Aviation and Emergency Management. He is a N.C.-certified Firefighter/Paramedic with over 20 years of emergency response experience with local, state, and federal agencies. He comes with a diverse emergency response and educational

background with teaching certifications in a variety of emergency service topics. He has been in Emergency services higher education for 20 years teaching initial courses for job certifications, specialised fire/rescue classes as well as graduate and undergraduate programmes, literally having taught thousands of students. His academic interests have included emergency responder safety, autism victims in disasters, preparedness education, business resiliency, emergency service leadership, and other related topics with several articles and publications. He has been a recognised speaker at local, state, and national venues in the realm of public safety and is a big believer in the power of education to make communities safer through cooperative ventures. He is known for his passion for passing on knowledge to others, believing that knowledge is power. He lives by the saying that if you are not having fun, you are not doing it right and tries to apply this saying in everything that he does.

Lorraine Ling is an Emeritus Professor at La Trobe University. She has worked as an academic in higher education for in excess of 30 years. Lorraine has held the role of Executive Dean of Education at La Trobe University and then at Victoria University in Australia. She has also served as Pro-Vice-Chancellor Associate – Strategic and Academic Transformation at Victoria University. Lorraine has researched and written extensively in the fields of teacher education, education policy, professional development in education, values in education, research methods and paradigms, and the changing nature of university work. Prior to her work in higher education Lorraine taught in primary, technical, and secondary schools in both the public and private sectors. She now serves on several academic boards and acts as a consultant in the area of education. Lorraine is currently co-authoring a book focussing on the *Future of Universities in Times of Crisis and Disruption*.

Peter Ling is Adjunct Associate Professor at Swinburne University of Technology, Melbourne, Australia. He has extensive experience in academic development at Royal Melbourne Institute of Technology University, where he headed the Flexible Learning Environment Unit, Victoria University, and Swinburne University of Technology, where he directed the Academic Development and Support Unit. He has been principal researcher in several national projects and has acted as evaluator for national learning and teaching projects. His recent publications with L. Ling include *Emerging Methods and Paradigms in Scholarship and Education Research* (2020. I.G.I. Global). He is a member of editorial board and referee for *Innovative Higher Education*, USA. He is a member of the College of Reviewers and has been Co-editor of the international journal *Higher Education Research and Development*.

Robert Lopez is a Lecturer at the Department of Construction Management in School of Design and the Built Environment (D.B.E.) at Curtin University, Bentley. He received his Building Design and Drafting Diploma from Central Institute of Technology, Leederville. He completed both his BAppSc (Honours) degree

and PhD (Chancellor Commendation) in Construction Management at Curtin University, Bentley. His areas of expertise involve building design and drafting, quantity surveying, design and construction management, building technology, project procurement and dispute resolution, BIM, as well as facilities and asset management.

David Wai Lun Ng, PhD, is an Adjunct Lecturer at the Curtin Business School, Singapore campus where he teaches across the business school whilst combining industry research with ongoing work as a Chartered Accountant in industry.

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Foreword

At one time in higher education, no thought was given to the matter of curriculum. Indeed, for some centuries, the concept of curriculum was absent, and even the concept of higher education for that matter. At the most, there was – from the late nineteen century onwards – a sense of a syllabus, which was barely more than a shopping list of topics that reflected the lecturer's scholarly interests. Matters hardly changed even when academics gave some of their time to systematic research, for the shopping list of topics simply grew in length, and the student experience – such as it was – was dominated by the problems that constituted the lecturer's research activities. It was only with the coming of mass higher education that the concept of a curriculum started to form; and even then the actual English term 'curriculum' (or its equivalent in other languages) was seldom to be seen.

The link between the emergence of mass higher education and that of a curriculum was multiple, reflecting considerations of managerial efficiency and of educational goals. It is the latter set of considerations that are pertinent here. One key issue was that of breadth and depth: to what extent should the student be expected to go deeply into a single disciplinary or professional field and to what extent might that same student be expected to have a grasp of cognate fields and see her or his interests in a broad perspective? Another related, though slightly different, matter was that of analysis and synthesis: was the student to be equipped with the resources to identify the components of a problem and deal with them piecemeal and/or was the student to be furnished with complementary schemas so that she or he could stand back and take an overarching view of a matter, seeing it synoptically, with different elements having their place in large schemas?

As higher education systems have been formed in nations over recent decades, these issues have multiplied, especially as universities and other such institutions have come to be expected to engage with the wider society and the economy. In the process, the term 'skills' has become ubiquitous, to be joined even more recently by that of 'employability'. Now, higher education is commonly seen as a vehicle by which the student can gain competences attuned to the evident needs of the labour market. In turn, the curriculum is stretched this way and that, not only inwards in extending the elements of knowledge and understanding as disciplines and their sub-disciplines multiply, but also outwards, as the demand for skills grows, with skills themselves reflecting an increasingly vast array of *practices of engagement* in the wider world, at varying levels of complexity and insight.

Against this background, it was inevitable that the curriculum would become disaggregated and divided into curricula units, which students could take separately. Modular programmes emerged, in which different combinations of modules could be put together to form personal study programmes. And, just recently, this impetus to opt for a higher education composed of discrete units has accelerated with the idea of micro-credentials.

The title of this present book, *Introducing Multidisciplinary Micro-credentialing: Rethinking Learning and Development for Higher Education and Industry*, intimates some of the influences that are prompting this current surge in a unitised curriculum. They include a sense that a purely discipline-based approach is no longer adequate in a world that is increasingly inter-connected, that higher education has to serve many purposes to include but to range far wider than the educational dimension, and that the development of students as persons should be taken on board. So considered, micro-credentialling may be considered to be a response to the multiple challenges now faced by a higher education curriculum.

It is worth drawing out this context so as to gain a sense of just what a radical approach micro-credentialling presents. If the world is in motion, is fragmented, is effervescent, and is complex such that it bears qualities of unpredictable emergence, then the higher education curriculum has to be entirely rethought. It is apparent that curricula that are confined within disciplines, with the student journey fixed within such boundaries, may be actually injurious. Such curricula *discipline* the structuring of human beings in ways that are entirely inappropriate to an inter-connected world in rapid and uncertain motion.

The curriculum issue, accordingly, under the newly presenting circumstances, is that of devising vehicles of encounter that encourage not only openendedness in inquiry but in the development of the sheer being of the student. What is called for are graduates who are able to contribute positively to a world where nothing – no concept, no framework, no practice, no system, and no institution – should be taken for granted. Micro-credentialling may, accordingly, be understood as a means of enabling students not just to form a welter of skills in different domains but also to tolerate being a person in a fragmented world.

This book represents a hugely valuable attempt to explore these matters and it opens doors to yet further inquiries. For example, might the multi-disciplinarity of micro-credentialling open not only to *inter*-disciplinarity – where a student might be required to handle several disciplines at once – but also to *trans*disciplinarity, where the student might be expected to address large issues drawn from the world and so transcend the (epistemological) framings of disciplines and be situated much more in the (ontological) messes of the world? Might micro-credentialling extend to the student's *lifeworld* and permit the student to bring into her or his university experience their life*wide* learning acquired in all manner of settings beyond the university, in personal life and in the community? Might micro-credentialling offer new vehicles for gaining cognitive and experiential resources for *critiquing* the world (simply not found within single disciplinary frameworks)?

Introducing Multidisciplinary Micro-credentialing should therefore be recognised as a radical manifesto. The world is dissolving barriers and is requiring that

its people take on permanently disrupted modes of sheer being; and higher education has to find completely new curriculum arrangements so as to be adequate to this world. In this world, the very terms 'progression', 'coherence', 'development', and even 'becoming' are now problematic, while interconnectedness, cross-pollination, networks, and transcendence must surely hold the attention of those with interests in the shaping and the proper development of higher education. Just these matters are posed by the publication of this book.

Ronald Barnett
London, February 2023

Preface

Various roles I played over two decades in higher education and industry podiums made me wonder why learning is so fragile. Why is it among the most significant synonyms for life's greatest gamble? Why does 'has it' or 'lack it' strongly affect *who we are* at the most pivotal points in our lives? Why does learning need validation to align our realities with someone else's? What makes higher education culture different from culture of other institutional learning? Most importantly, why does creative learning via critical thinking still strive to survive in the rapidly shifting learning landscape? Introspectively, the pandemic learning shift made it easier for me to scrutinise these individually as well as collectively.

I started micro-credentialing as a leeway to rethink self-sufficiency while doing prep work for my executive leadership training at Harvard Kenney School. Due to the time difference between Boston and Perth, the long sleepless hours I spent online made me relentlessly reflect on how much learning is too much. Is it meaningfully lasting when you consume learning where you feel empty and hungry for something old, something new, something borrowed, and something blue? Later on, it dawned on me that something old and something new was re-skilling and upskilling, and something new, something borrowed as research and development. Along the way, I bonded with a highly seasoned and curious group of higher education executives from global higher Ed brands who were also positively charged with the desire to get into the depths of delirious higher education-job market mismatch. Initially, it started as a research grant proposal with an option to extend as an academia-industry manifesto to negotiate graduate competencies without all the trimmings. Beena was the one who pushed it all the way through from the grant to the book.

Perhaps, every innovative solution stems from constraints under dire circumstances. Micro-credentialing is that sizeable and affordable portion for learners, providers, and employers could unhesitatingly take on, particularly during uncertain times when learning is surviving. This is one of the reasons the book follows Q&A (Questions and Answers) format instead of FAQ (Frequently Answered Questions) format, where an educated guess is made on the gaps in existing answers. Also, this is a mere point of departure rather than an end of a journey.

What holds for the future is more challenging, requiring clarity on the nuts and bolts of the academia-industry manifesto outlined in this book.

Chamila Subasinghe,
Manchester, UK
10 April 2023

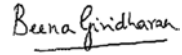
This book on Micro-credentialing brings to fruition many months of intense engagement: with our chapter contributors, peer-reviewers, publishers, and the wider higher education (HE) community. Along the way, I had the opportunity to reinforce my belief in the way Multi-disciplinary Micro-credentialing (MdMC) is set to progress as a lifelong learning opportunity for current and future workplace employees to engage in building expertise in their own field of work with recognised awards/credentials. It is undeniably a game changer when it comes to advancing career opportunities for individuals focussed on gaining momentum in their careers. We hope that academics, industry partners, and policymakers will interact with the book chapters reading through academic and industry perspectives of MdMc and gain a better understanding of the importance of MdMc in uplifting generational workforces to come.

The idea for the book started as (Cham mentions above) an education grant, followed by the sequential process of research with academic teams, for me gaining a first-hand understanding as a facilitator and course organiser on how MdMc is perceived by participants who engaged in completing short courses at the Malaysian campus (during the pandemic via remote learning) and academic team presentations at HE conferences which allowed for peer feedback and reflection.

The pandemic brought to the forefront that innovative pedagogical models of 'blended learning' and 'remote learning' could all be achieved in mainstream HE learning and teaching with consensus from all stakeholders. This circuitously propelled the trajectory of micro-credentialing as well. Training and continuous upskilling and re-skilling were adopted online and delivered with rigour and expertise, and learning in 'byte size segments' could indeed occur online or in person.

It is delightful that Emeritus Professor Ronald Barnett (Institute of Education, University of London), with whom I have had the privilege of working on projects since 2003, has honoured us by writing the foreword. Discussions with him on MdMC added to the rigour and imperative to engage deeply with the topic. We are profoundly indebted to him for his most insightful foreword.

We hope that the book will add to the scholarship and understanding of the role of MdMc in post-secondary education and will be recognised as a valuable resource for all HE stakeholders: academics, industry partners, policymakers, and the broader HE community.



Beena Giridharan
Miri, Malaysia
11 April 2023

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We particularly thank the chapter contributors and their institutions for their support and patience. This book project couldn't have been more difficult for them, with the constant challenges in both academia and industry with explosive changes that happened during the last few years.

We owe Emeritus Professor Ronald Barnett at the Institute of Education, University of London, a great vote of thanks for keeping it authentic and relevant for all of us. His foreword adds value to the core criteria we attempted to establish in this book.

The Emerald team was quick and compassionate, and they didn't need any additional convincing in conveying relapses that happened quite sporadically in the process.