A FULLY ONLINE RESEARCH PORTAL FOR RESEARCH STUDENTS AND RESEARCHERS

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ABSTRACT

Aim/Purpose	This paper describes the context, development, implementation, and the potential transferability of an integrated online research environment that allows its users to conduct all aspects of research online.
Background	While the content of most traditional courses can be delivered online and learning outcomes can be achieved by adopting equivalents to face-to-face pedagogic approaches, certain courses, such as those that require a substantial research component, present significant constraints for delivery online. To overcome these limitations, Australia's largest university developed and implemented a Research Portal.
Methodology	The development team conducted a functional requirements analysis, identified the components that would be necessary to meet user needs, and reviewed existing solutions. The Monash University Psychology Research Portal was designed, tested, developed, tested for user experience, implemented, and reviewed. The Research Portal is structured according to the usual research sequence and provides users with access to supporting information and integrated capacities including research supervision, participant acquisition, and data collection, analysis, and storage.
Contribution	This integrated online research environment is equivalent to and, in some ways, superior to an on campus/non-online research capacity.

Findings	The usage of the Research Portal has grown rapidly and has satisfied the requirements and met the research needs of students of an online course that includes a research project, providing a common, ubiquitously accessible, and integrated online research environment.
Recommendations for Practitioners	Further refinement, personalization, and expanded implementation and dissemination of the Research Portal components are required. The formation of networks and working partnerships to operate, maintain, and promote Research Portal initiatives is recommended to reduce operational costs, increase access, and create an impact.
Impact on Society	The Research Portal is an efficient resource that provides easy access to a standard interface at any time and from anywhere and can potentially be used by other online research courses, as well as by online and non-online researchers.
Keywords	online research, virtual lab, innovation

BACKGROUND

There is a rapidly increasing demand for flexible and non-traditional learning and teaching. This demand is pushing universities and other educational institutions to produce new ways of achieving optimal course delivery and scope, such as by the increasing offering of online and blended courses of study.

The popularity of online courses keeps rising despite a decline in the total number of tertiary students, including both online and traditional students. In the United States alone, 6 million (29.7% of all higher education students) took at least one course at a distance in 2015, while approximately 2.9 million students (14.3% of all higher education students) took all their higher education instruction at a distance (Allen & Seaman, 2017). Online education is rapidly becoming more appealing to both students and faculty. Technology developments and advantages of remote studying (e.g., ubiquity, flexibility, personalization, convenience) make the online training system at all primary, secondary, and higher education levels more accessible and, according to some scholars, more effective (Aithal & Aithal, 2016). Faculty acceptance of the value and legitimacy of online education has also been rising, while chief academic officers view the learning outcomes for online instruction as the same or superior to face-to-face instruction (Allen & Seaman, 2016).

ONLINE STUDY OBSTACLES: SUITABILITY OF COURSES FOR ONLINE IMPLEMENTATION

An impediment to the expansion and improvement of online university education is the lack of suitability of some courses and course features for online implementation. While the content of most traditional courses can be delivered online and learning outcomes can be achieved by adopting equivalents to face-to-face pedagogic approaches, certain courses present significant constraints for delivery online. Examples of courses that are not currently suited to online education include medical courses that require clinical or other hands-on experience, and engineering courses that require hands-on labs for instrumentation awareness and the development of haptic skills (Abdulwahed & Nagy, 2011). Graduate psychology courses are also less suited to online delivery, due to their research and clinical components. Challenges for online graduate psychology course development and implementation include the translation of a traditional on-campus research project into an online mode that is equivalent, the ability to scale from small cohorts to several hundred students, and the development of clinical and research skills through virtual means.

BIOGRAPHIES

Angelos Rodafinos is a higher education consultant with extensive experience in educational technologies, online learning, process and systems improvement, technology innovations, and program development. He obtained his Ph.D. in Psychology from the University of Wollongong, Australia, an M.Sc. in Sports psychology from Ithaca College, NY, and a B.Sc. in PE and Sports Sciences from Aristotle University, Greece. Dr Rodafinos has lectured in introduction, applied, social and work psychology at several universities and served as Head of the Department of Psychology at the International Faculty of the University of Sheffield UK for nearly a decade, as Program Director for Social Sciences at Swinburne Online Learning, and as Research Portal Manager at Monash University, Melbourne. He is the author of several articles and two books, one on Stress management and problem solving and a second on the Psychology of change.

Filia Garivaldis is a Lecturer and Course Convenor of the Graduate Diploma of Psychology Advanced (GDPA), Australia's largest and first fully online 4th year APAC accredited course in psychology, at Monash University. Dr Garivaldis is responsible for the development and delivery of the coursework units of this course, where she has introduced several innovations, such as simulated activities. Dr Garivaldis was also one of the founding members of the Monash Online – Psychology Education Division (MO-PED) research group, which provides evidence-based improvements to the GDPA course, and other courses, particularly in the areas of online learning, online teaching, and student support. Her research in this group, specifically, is concerned with developing work readiness in online psychology students, and the experiences of teaching and working online. Dr Garivaldis has worked in academia for over 15 years, previously as a Senior Lecturer at Regent's University London, where she developed an MSc in Occupational and Organizational Psychology, accredited by the British Psychological Society. She has authored several peer-reviewed publications and has attended many conferences, where she has presented her research on self-regulation and cognitive regulation, motivation, and implicit affect states. Dr Garivaldis has also worked in industry, across training and organizational development functions, due to her specialization in organizational psychology.

Stephen McKenzie was awarded a B.A. Honors' degree in Psychology in 1982, and a PhD in Psychology in 1987, from Deakin University. Dr McKenzie is a Course Convenor for and the co-developer of Monash University's large new fully online fourth year course – the Graduate Diploma of Psychology Advanced – Australia's largest Fourth Year Psychology course. Dr McKenzie co-led the development and implementation of the Monash Online - Psychology Education Division (MO-PED) online research program, whose international collaborators include King's College, London, and co-led the development and implementation of the Research Portal fully online research system. Previously Dr McKenzie conducted preventive health related research at the Centre of Excellence in Intervention and Prevention Science (CEIPS) and was a lecturer and researcher at Deakin University. Dr McKenzie's research interests and publications include in online education, mindfulness and addiction.