

Project Summary for IAL Website

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Project Title:	How and Why University Graduates Seize Opportunities Offered by Lifelong Learning Policies
Project Number:	GA21-03
Year of Approval:	2021
Funding Source:	WDARF
Objectives and intended outcomes of the project:	<p>This project will generate comprehensive datasets on the usage, benefits and incentives of lifelong learning programmes (e.g., SkillsFuture Credits and other SkillsFuture programmes) among graduates of a major Singapore university and the general adult population.</p> <p>Through reports, sharing sessions and publications, findings from this research will help policymakers to assess the effectiveness of lifelong learning programmes to train and maintain the employability of the most qualified Singaporeans. Findings can be used to adjust communication about these opportunities to increase uptake and positive outcomes of lifelong learning initiatives.</p>
Project Team	
Principal Investigator	Dr. Paul A. O’Keefe
Summary of Project (up to 300 words)	
<p>The 4th Industrial Revolution and Covid-19 pandemic dramatically impacted the nature of work. Lifelong learning (LLL) has become increasingly necessary, even for highly educated workers, to pivot and upgrade skills in adulthood. Singapore’s government has several programmes to support LLL, such as SkillsFuture. Problematically, however, many citizens do not seize these opportunities.</p> <p>This project will provide a comprehensive, interdisciplinary approach to understanding participation in LLL programmes, particularly SkillsFuture Credits and other SkillsFuture programmes. We will focus predominantly on university graduates, to understand key factors that lead highly educated workers to use LLL policies, and how such policies could be designed to encourage greater usage of LLL programmes. We will survey alumni of a major university, with the goal to understand (1) psychological and social determinants of LLL activities; (2) how LLL policies are used, and (3) outcomes of LLL participation like enhanced professional skills, job change, promotion, or securing employment. The research will be based on the European Adult Education Survey, already used in over 30 countries, and further enriched by measures of motivation-related mindsets regarding beliefs about the cultivation of intelligence, vocational interests, and opportunities. Survey data will be linked to university records to identify alumni learning trends over across time. We will recruit a second group from the general adult population to examine generalizability and boundary conditions. In addition, focus groups and interviews of alumni will yield greater detail about individuals’ approach to LLL and policy resources. Finally, a short follow-up survey will track progress over time in respondents’ professional experiences and additional learning activities. Research findings aim to help policymakers improve LLL programmes, encourage more Singaporeans to seize LLL opportunities, ultimately benefitting both the users of the programmes as well as Singapore’s workforce.</p>	

Summary of Project Findings, Deliverables and Impacts (up to 500 words)**Findings**

Ongoing analyses yield several important findings with strong theoretical and practical value. Highlights include:

1. What are key barriers to LLL? In the alumni and general population, cost was the primary barrier, particularly for those with lower incomes — the same people who reported the greatest need for upskilling. These findings highlight the importance of schemes like SkillsFuture Credit, with many participants suggesting that increased voucher amounts would improve accessibility further. Lack of relevant course options and time/scheduling constraints were also common barriers across all backgrounds.
2. Who persists through barriers to seize LLL opportunities? A key psychological determinant of LLL usage is mindset. Specifically, people with a stronger *growth mindset of opportunity* — the belief that good opportunities can be cultivated — were more likely to engage in LLL than those with a fixed mindset, and this effect was strongest when people's financial resources were constrained. Notably, when opportunities were made financially accessible through SkillsFuture Credits, mindset no longer predicted upskilling — fixed-mindset individuals were just as likely to use their credits. This highlights growth mindset as a novel mechanism for boosting upskilling among those with constrained finances.
3. How are SkillsFuture Credits and other LLL policies used? Contrary to the typical employability framing of upskilling, people were more likely to use credits and pursue LLL for personal reasons — such as acquiring everyday knowledge or learning "for fun" — than for professional advancement. Interviews and focus groups also revealed that social motivations were important, suggesting that community-based incentives or socially focused advertising could attract users who currently view SSG courses as irrelevant.

Deliverables and Impacts:

Efforts are ongoing to disseminate findings, facilitate future research and create impact.

1. **Data Linkage.** Anonymised alumni data was ingested into the university Data Lake to enable ongoing research collaborations and long-term tracking of learning trends.
2. **Dissemination.** Findings are being shared through scientific conferences and peer-reviewed publications. Mindset findings were presented at the 2024 International Conference on Motivation, a leading biannual forum for learning science research. A research report on opportunity mindset findings across alumni and the general population was prepared for consideration at a top organisational psychology journal.
3. **Impact through Intervention.** In light of our mindset findings, we are currently developing a growth-mindset-of-opportunity intervention to assist people seeking new employment. Following on "wise" intervention principles, the intervention module is relatively brief (< 30 minutes), scalable, and easily delivered through online platforms, and uses engagement reading and reflective writing exercises to instill the understanding that opportunities in life are not inherently fixed; new ones can be cultivated. By promoting a growth mindset of opportunity, the

intervention aims to increase active efforts to improve skill sets and employability. Currently, the intervention is being piloted in diverse samples of people transitioning to the workforce or changing jobs.