

Project Summary for IAL Website

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Project Title:	Digital Capacity Building of Own-Account Workers in Singapore
Project Number:	GA20-06
Year of Approval:	2021
Funding Source:	WDARF
Objectives and intended outcomes of the project:	To assess the digital needs of own-account workers in Singapore and inform policy and programme development to build their digital competency.
Project Team	
Principal Investigator:	Dr Carol Soon
Summary of Project (up to 300 words)	
Digitalisation has increased the prevalence of remote and contractual work, the rise of digital intermediaries, and the use of advanced digital technology, all of which affect both traditional and self-employment. As self-employed persons without employees, own-account workers do not have the same upskilling support and opportunities as traditional employees. As they make up a substantial and increasing proportion of the local workforce, there is a pressing need to help them acquire jobs and skills to stay relevant in the digital economy. Through focus group discussions and interviews with own-account workers, as well as employers and trainers who work with them, and analysis of secondary data, this study identifies how to advance the digital skills and competency of own-account workers in Singapore. It also develops a framework for digital skills development. To do this, the study will examine the digital readiness of Singapore's own-account workers, the digital skills requirements of own-account work in Singapore, and digital skills training available to own-account workers in Singapore. Given the diversity of own-account work, both in the local and global contexts, this study addresses the required skills, concerns, and challenges faced by own-account workers from different sectors.	
Summary of Project Findings, Deliverables and Impacts (up to 500 words)	
In Phase One of our study, we developed a tiered skills framework to support their digital skill acquisition. In Phase Two, we refined this framework with input from local own-account workers and trainers and employers those who have worked with own-account workers. The final framework comprises three tiers — baseline digital skills, intermediate digital skills and occupation-specific skills. A fourth category of skills — nondigital contextual skills — supports the usage of digital skills across the three tiers. Refer to page 7 of the report for the framework. To understand the impact of training, we tested the digital skills framework that we developed in Phase Three of the study among 52 participants. Half of the participants did Creative and Multimedia work while the other half held occupations related to Sales and Marketing. The two groups were taught a total of 12 skills in the digital skills framework: 11 common digital skills and one occupation-specific skill according to	

their occupation group. We surveyed participants before training, immediately after training and six months after training. The key findings, impact and implications are:

1. **Training improved ability in digital skills:** Participants reported significant improvements in their ability for 10 out of 11 common digital skills taught. Across both groups, seven of these skills improved immediately after training and plateaued after six months while the other three common skills improved gradually over six months. *The results suggest that the improvements were likely due to the training programme but there was no further self-directed improvement after six months, in the absence of training.*
2. **Training increased frequency of skill use for more advanced digital skills:** Participants reported a significant increase in their frequency of use for six out of 11 common skills taught. The skills which did not see an increase in frequency of usage are the *baseline skills which were already frequently being used before the training programme.*
3. **Training improved reported ability of performing almost all tasks taught:** At the end of the study, participants reported that the training programme effectively improved their ability in performing 15 out of the 16 specific tasks. However, their reported ability in performing these tasks plateaued during the six-month lapse. *These findings emphasise the need for continuous learning or training to maintain and improve skills, especially for more advanced or complex ones.*
4. **Increased confidence in using digital technology at work after training:** We observed significant improvements in participants' confidence in using digital software (e.g., Microsoft Word, Google Sheets, various internet browsers, etc.) and digital services (e.g., internet banking services, online job-matching platforms) for work. We also observed a significant increase in participants' belief that digital technology helps them find work more easily.

The focus group discussions and in-depth interviews conducted with local own-account workers shed light on their challenges in training and upskilling to be more digitally competent. The challenges are grouped in three categories: (1) **individual** (lukewarm attitudes towards formal training, low self-efficacy and difficulties identifying skill gaps), (2) **environment** (there is no one-size-fits-all solution and difficulties in navigating existing resources) and (3) **ecosystem** (opportunity cost and lack of support).

To address the various challenges faced by own-account workers, we propose three main buckets of recommendations: **(1) facilitate self-assessment, (2) enhance resources and close delivery gaps, and (3) strengthen ecosystem support.**