

Enhancing Employability and e-Business Capacities for Arabic-Speaking Residents of Australia through START Online Training

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ABSTRACT

Background: Arabic minority groups in Australia face language barriers and shortage of computer skills, which cause unemployment and/or an inability to establish their own businesses. The unemployment rate for this group is ~ 20.5%, which is 3-times higher than the average unemployment rate in Australia (~7%). The unemployment will get worse due to COVID-19 pandemic. The current provision of computer and language training in Australia is in English, which results in longer training times and higher chances of non-completion.

Objective: The Smart Training for Arabic Residents on Technology (START) is an interventional online bi-lingual training that assists Arabic-speaking residents of Australia to establish an online business with minimum resources (money, space, and infrastructure) or at least help them find suitable employment.

Methods: START uses *Design-Based Research DBR*, as it has its own progressive refinement approach. Both qualitative methods (skills assessment interviews, semi-guided observation, and final follow-up interviews) and quantitative methods (practical tests, log analysis/learning analytics, feedback surveys) contribute to evaluation and improvement cycles.

Discussion: DBR has not been applied to vocational immigrant education previously. This research project contributes to a better understanding of the relationships between educational theory, designed learning and outcomes, to help advance learning and teaching environments by refining critical factors that lead to success for trainees. Practically, Arabic residents are provided opportunities to master computer and English skills for establishing their own online businesses. This research, however, has some limitations. Usually a team of teacher, learning designer, and researcher is recommended for DBR, but that is not possible in this PhD study. It is also acknowledged that although this study aims for optimal refinement of the START program, through multiple cycles of improvement, realistically it will be difficult to “recreate” the exact learning environment in future programs.

Keywords: design-based research, Arabic-speaking migrants, START e-business online training, translanguaging approach, unemployment, English for specific purpose ESP.

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1. Background

Technological progress has resulted in unemployment due to the replacement of human-labour with machines (Adachi, Inagaki, Nakamura, & Osumi, 2019). Other external factors, contributing to unemployment are socio-economic factors as well as individual factors, such as age, gender, marital status and unemployment history (Houssemand & Pignault, 2019). Furthermore, as a consequence of COVID-19, it is predicted there may be as many as 3.4 million people who will be out of work (Maritz, Perenyi, Waal, & Buck, 2020).

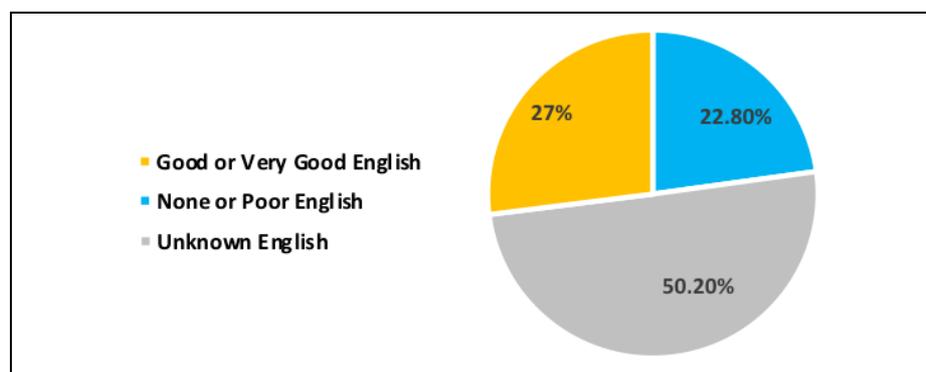
The Australian government is currently struggling to find ways to support Australian businesses (Maritz et al., 2020). Indeed, although governments have founded unemployment prevention services, job search assistance services and re-employment services, it was found that self-employment assistance training programs are more effective in fostering workforce innovation (Wandner, 2018). It worth noting that there are many who see this COVID-19 pandemic as an opportunity to start their own self-employment home-based businesses (Maritz et al., 2020). Therefore, there is a need for vocational education that provides specific skills training and guidance on career options (Van, 2019).

1.1 Unemployment in Australia

The Australian government provides employment services, through third-party service providers, to support jobseekers to overcome some of their barriers to employment (Duell, Grubb, & Tergeist, 2012). More than 820,000 unemployment allowance recipients required \$1.3 billion/year spend from the Australian budget (Davidson, 2018), and these numbers are expected to be increased due to the collapse of many businesses because of COVID-19 pandemic (Maritz et al., 2020). Seventeen percent of unemployment benefit recipients were identified as being from culturally and linguistically diverse backgrounds (Davidson, 2018, p. 8). Also, it seems that the more time individuals are unemployed, the more chance they will remain unemployed, regardless of their increased job search efforts to be re-employed (Krug, Drasch, & Jungbauer-Gans, 2019). Therefore there is a need to “*refocus employment services towards intensive help that makes a difference*” (Davidson, 2018, p. 5).

Australia is one of the three countries where English is widely spoken as a first language and yet has no official legal status (Schroedler, 2017). Despite the implementation of English language requirements in skilled visa programs, other existing programs do not require English language proficient including family and humanitarian visas. For example, between 2012 and 2018, Australia welcomed around 1.5 million individuals on different visas. More than 50% of those who arrived to Australia on humanitarian visas were from Arabic Middle East countries, as per the data obtained from Home Affairs of Australia (2019) and presented in (Hanna & Conner, 2020), only 27% of these migrants have good English skills (Figure 1).

Figure 1. English proficiency of migrants to Australia (2012 - 2018).



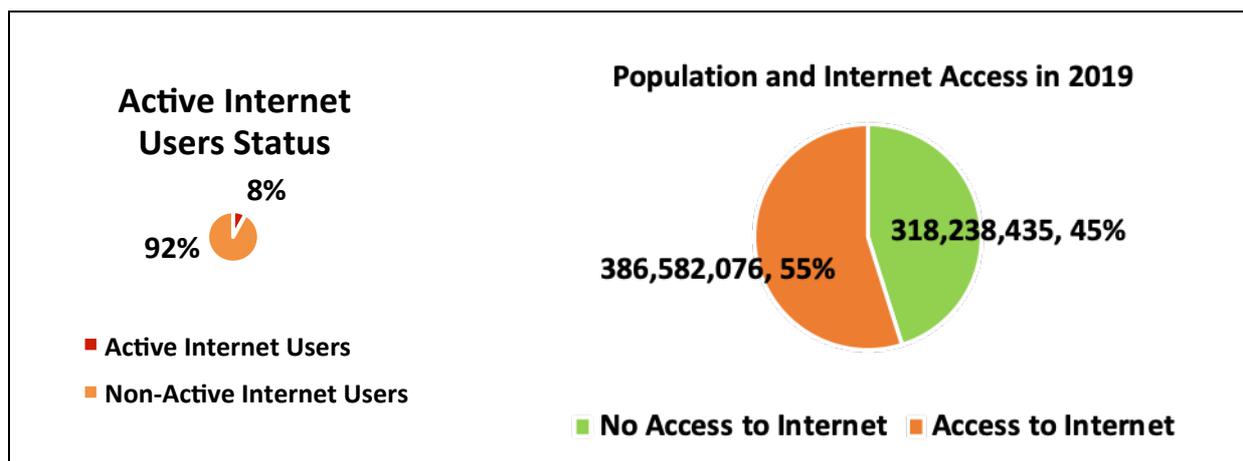
1.2 Profiling unemployment among Arabic residents in Australia

According to the 2016 Census, the population of Australia is around 23.5 million, and 321,728 individuals speak Arabic (ABS, 2016a, 2016b). There are no concrete statistics available to report the number of residents in Australia from Middle East countries who are unemployed. It is estimated that there are around 56,000 unemployed Arabic-speaking residents in Australia (Hanna & Conner, 2020). The estimated unemployment rate among this group is 20.5%; and such an estimation is suggested to be valid as it is consistent with what Davidson (2018, p. 10) has also reported that 21% of the unemployed are from the culturally and linguistically diverse backgrounds.

The lack of English skills is not the only contributing factor to the unemployment issue for Arabic-speaking residents. The lack of equal opportunity also contributes to their employment challenge. Middle-Eastern applicants for job opportunities were not given the courtesy of responses that their Anglo Australian counterparts (Booth, Leigh, & Varganova, 2012; Pinkerton, 2013). For example, a PhD qualified Iraqi with 15 years of experience had to leave Australia after a long-time of unemployment because of discrimination (Hassan, 2017).

The lack of ICT Skills (Information and Communication Technology) can also be a contributing factor to unemployment. ICT skills include the ability to use the available digital technologies and internet, to create and communicate information and ideas, solve problems, work collaboratively, interact with others and construct knowledge to be of use in every aspect of life (ACARA, 2019). Although there are no available statistics about how Arabic-speaking residents in Australia master ICT skills, we can construct estimations based on available statistics about their home countries provided by Internet World Statistics IWS – and reported in Hanna and Conner (2020). Although 55% of the total Arabic-speaking Middle-East population has internet access (IWS, 2019a, 2019b, 2019c), only around 8% of this population can access the internet, search for information and process the information, as presented in Figure 2.

Figure 2. Internet access & Internet users in Arabic-speaking Middle East countries.



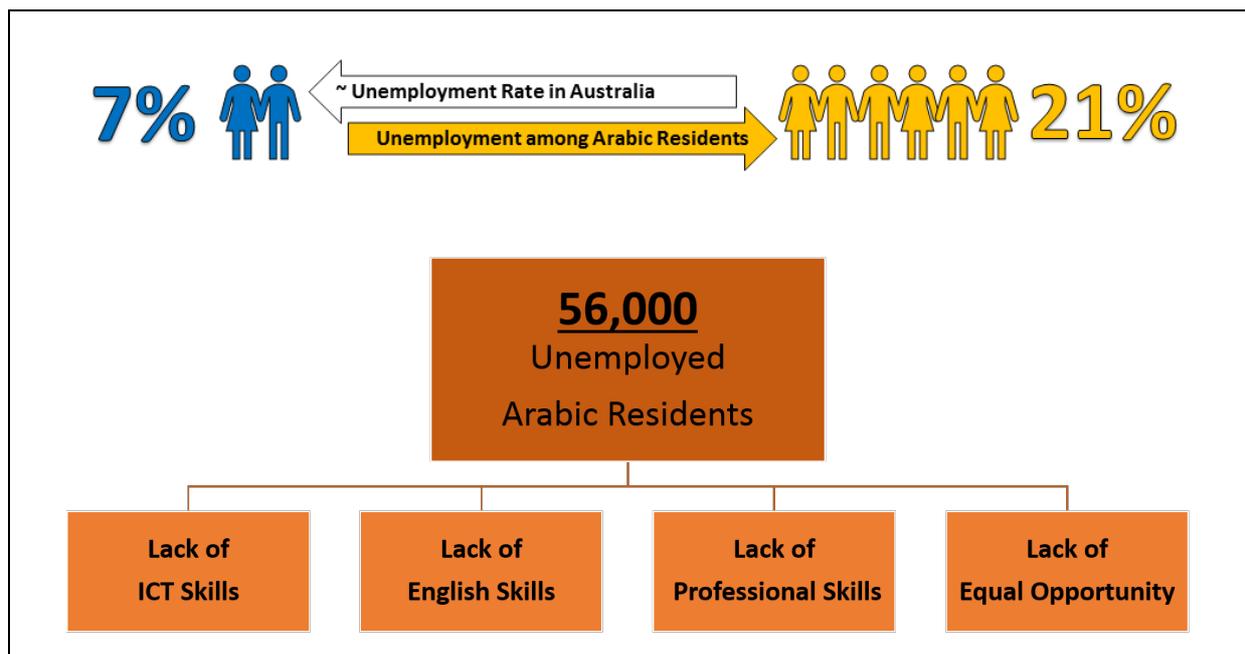
Therefore, Arabic-speaking migrants and refugees need both computer training and English language development. For example, computer classes were provided to refugees to support them with daily activities and to enable them to search for employment (Gilmartin, 2008). Providing language support is very crucial for refugees in their new hosting countries (Ayalon & Ayalon, 2019; Cairns, Krzaklewska, Cuzzocrea, & Allaste, 2018). As well, adult

refugees found that volunteering was invaluable for learning the language through practice (Gilmartin, 2008). Authentic ICT and English training, which provides learners with meaningful and relevant activities, can meet migrant needs for integration and employment.

Employability means the individual’s ability to find suitable employment accompanied with their ability to fulfil specific job requirements (Dengler, 2019), and to make transitions between different roles (Castellazzi, 2016). There are competencies that are also essential for the effectiveness of day-to-day activities in workplaces, such as problem-solving, networking and teamwork skills, critical thinking and decision making capabilities as well as job-specific skills (Castellazzi, 2016; Wozniak, 2018).

It can be concluded that the high unemployment rate among Arabic speakers (~21%) not only relates to their lack of English proficiency and/or lack of ICT skills, but also relates to other factors such lack of professional skills or lack of equal opportunity (Figure 3). Due to the COVID-19 pandemic that resulted in the collapse of many businesses (Maritz et al., 2020), enabling the Arabic-speaking residents to be employment-ready does not necessarily mean they gain employment. Hence, we need to enable them to establish their own online businesses, as an alternative solution to their unemployment. This is because the coronavirus pandemic has also created opportunities for others to become self-employed through developing a home-based business (Maritz et al., 2020).

Figure 3. Unemployment among Arabic-speaking residents in Australia.



1.3 Research Problem

There is a need for language and computer skills training so that migrants can become employed through starting their own businesses (Kury & Redo, 2018). Without developing such language and ICT skills, the integration of migrants and refugees in hosting countries will remain challenging for migrants and their families, communities, and governments. Educators should be aware of current learners' circumstances, prior knowledge and needs to establish authentic learning goals (Windschitl, 2002). Without preparing authentic training, the problem will remain challenging for migrants and governments.

English is the language most used to share knowledge. In fact, it has been argued that the development of science and technology were an early version of English for a Specific Purpose (ESP) (Parkinson, 2012). ESP ensures parallel acquisition of knowledge together with acquisition of the target language (Bratitsis, 2017; Tarnopolsky, 2012). To adopt and apply ESP pedagogy, the ESP needs to build new knowledge and skills based on authentic professional content, to achieve professional goals or to solve professional problems and to reflect real-world situations (Tarnopolsky, 2012).

The dynamic use of two languages simultaneously in learning environments triggers cognitive skills and enriches learning experiences (Thomas, Apolloni, & Parry, 2018). Translanguaging can be used to negotiate meanings through social interactive processes and cognitive activities, that helps in maximising the understanding and develops skills in the weaker language (Flores & Beardsmore, 2015; Krompák & Meyer, 2018; Lewis, Jones, & Baker, 2012; Mazzaferro, 2018). Once a learner is able to refine their understanding of the content, the translation is no longer needed (Lewis et al., 2012). Although previous research has focused on how language learning can be empowered by the use of technology (Goodwyn, 2000; Nguyen, 2013; Thomas, Reinders, & Warschauer, 2013), there is a lack of research that focuses on how learning ICT skills can also enhance mastering English language skills, especially using a translanguaging approach.

There is increasing dependency on using online learning (Huang, 2019; Milad, 2019). This has been accelerated in 2020 due to coronavirus pandemic, because of the requirements for social distancing (Onyema et al., 2020; Sun, Tang, & Zuo, 2020). A number of instructional design models have been proposed to enhance learners' motivation and hence engagement in online education (Hartnett, 2016). For example, the ADDIE Instructional Design Model provides a tool to visualise and direct processes for creating high quality teaching and learning materials, through: Analysing learners' needs, Designing an effective learner's environment, Developing learning materials, Implementing instructional strategies, and Evaluating results of the development (Branch & Kopcha, 2014). Following these steps helps to design learner-centred courses (Kaminski et al., 2018; Seel, Lehmann, Blumschein, & Podolskiy, 2017).

2. Design and Methods

2.1 START training program

The intervention, proposed in this study, is called "START", which stands for Smart Training for Arabic Residents on Technology" or "إبدأ", an order verb to *start* in Arabic. START is a training program that aims to help the unemployed either by enhancing their employability by developing their ICT/Computer skills, as well as English, or through progressing to e-Business phase where participants are required to develop their own e-business projects.

The learning and teaching activities and assessments will be enabled through an online learning management system (LMS), as it has the capacity to provide comprehensive administration, user management, documentation, progress tracking and reporting. A syllabus needs to be prepared first, followed by preparing the content and learning activities within the LMS (Karlsson & Janson, 2015). There are different levels of ICT skills (Beetham, 2017), which we aim to develop within the START LMS. Each module consists of learning resources and activities, which covers specific ICT skills of a certain software, which are of use for businesses. At the end of each lesson, there will be online discussion in English, facilitated by video conferencing, but translanguaging will be used as prompts.

2.2 Design-based research

This research evaluates the effectiveness of the START training intervention with Arabic-speaking residents in Australia, using a design-based research (DBR) approach. DBR encompasses an intervention specifically created for enhancing learning as it progresses (Brown, 1992). DBR has its quasi-experimental nature, as it aims to test and refine educational designs, by generating evidence-based claims about learning (McKenney & Reeves, 2013; O'Toole & Beckett, 2013). DBR blends empirical mixed-methods educational research with theory-driven design of learning and practice (Baumgartner et al., 2003; Collins, Joseph, & Bielaczyc, 2004). Unlike traditional experimental design, DBR enables the teacher to design and drive the research evaluation through iterative cycles in relation to changes in curriculum. As well, in DBR, the researcher evaluates students' outcomes in response to a specific instructional design (Reimann, 2011).

DBR is suitable for the design of technology-enhanced learning because it generates evidence used to guide possible revisions in an ongoing design (Wang & Hannafin, 2005). Many of the proponents of this type of DBR inquiry were originally derived from instructional design (McKenney, 2012). DBR has its own *progressive refinement approach* (Collins et al., 2004, p. 33). Refining an interventional design requires an understanding of the underlying variables at all layers, either cognitive/personal, interpersonal or institutional (Collins et al., 2004; Sandoval & Bell, 2004). Through DBR, this study aims to refine and evaluate a novel intervention, START, that improves ICT skills for Arabic-speaking residents, and with the aid of translanguaging. Their English skills will also be evaluated as part of the assessment of outcomes. The last phase of this intervention helps the trainees to set up their own e-businesses.

2.3 Research question

Research questions frame the research project and there may be multiple ways in which these questions can be answered (Kelly, 2012; McKenney, 2012). The main research question for this study is:

- How does the online training program, START, and its refinement processes, improve Arabic-speaking migrants' employability skills and e-business abilities?

2.4 Research participants

There are around 56000 unemployed Arabic-speaking residents in Australia (Hanna & Conner, 2020). From this population, participants will be recruited, using a convenience sampling approach (Gitlin & Czaja, 2015). This includes those who have access to or who deal with Arabic-speaking communities (mainly churches, mosques, community organisations and refugee centres). Although there may be bias associated with convenience sampling, such an approach can be justified, allowing focus on specific "inclusion / exclusion criteria" for participation in START Training Program from within the overall population. These criteria are:

- Middle Eastern native Arabic speakers, who live in Australia.
- Have work rights and are seeking employment or would like to set up their own businesses.
- Have basic level of ICT skills (have an email address and can navigate the internet) and English skills (by writing a paragraph, in English, introducing themselves and explaining their interests in the program).

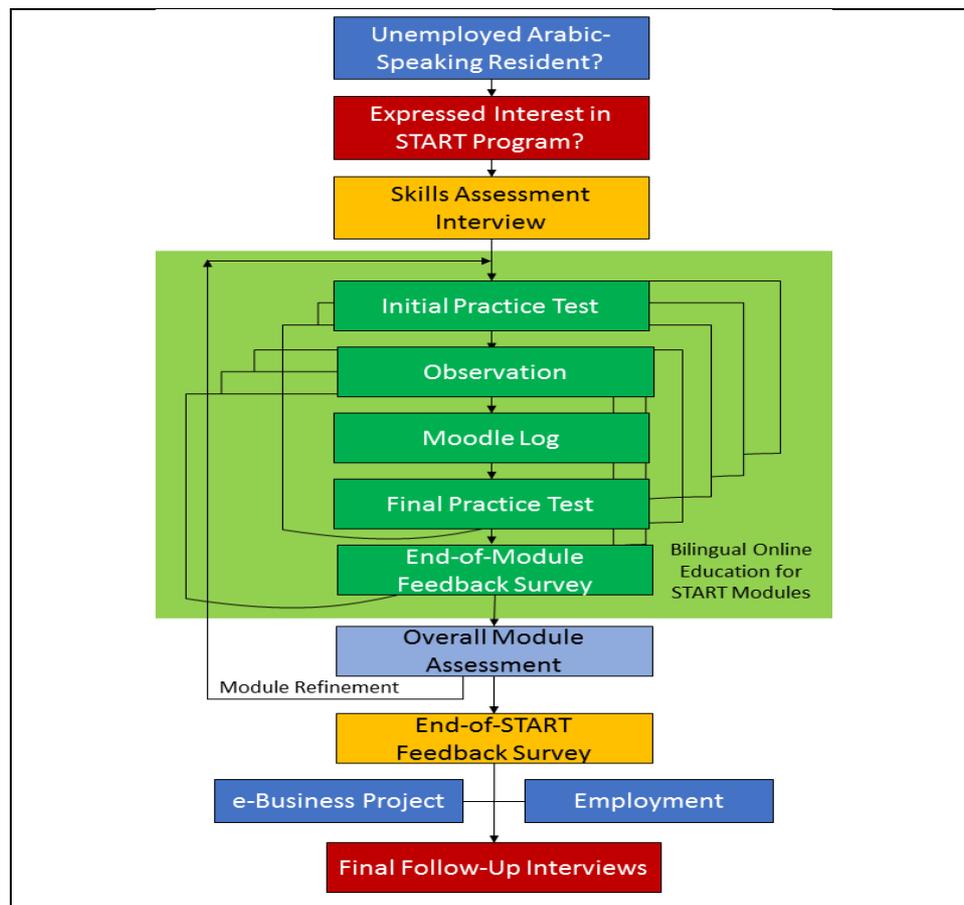
Meeting the criteria does not necessarily mean they will be enrolled in START Training Program. A skills assessment interview with the potential research participant, who expressed

their interest in the program, will determine whether they would benefit by the START Program, by ensuring they have basic ICT and English language skills and a willingness to develop an online e-business. After the skills assessment, the researcher will invite those who meet the criteria to take part in the START Training Program. Priority will be given to those who have been unemployed longer or who have disabilities.

2.5 Research methods

A mixed methods research design can provide a richer understanding of a research problem than could be achieved by using either quantitative or qualitative methods alone (Baumgartner et al., 2003; Creswell, 2014). Due to the coronavirus pandemic, and its implications for social distancing, data collection will be conducted remotely over the phone or online. At the beginning of each START learning module, there will be an initial practical skills test. During the module activities, LMS logs and analytics record the interactions of participants with the online content and semi-guided observations are used to collect data about interactions and behaviour during the online discussion sessions using video conferencing. At the end of module, there will be a practical test as well as a built-in survey, to collect views of trainees participating in the module. Findings from the analysed data for each module will drive the refinement of the next module. At the end of START Training Program (at the end of all modules), there will be final built-in survey as well as final follow-up interviews (Figure 4 **Error! Reference source not found.**).

Figure 4. START intervention and design-based research.



2.5.1 Initial skills-assessment semi-structured interactive interview

Semi-structured interviews allow participants to express themselves in their own words and explore issues in greater depth within a limited time frame (Bernard, 2000). The semi-structured interviews will be guided by a framework of topics to be discussed (Decher, 2016). These interviews with the START Program's potential trainees will be semi-structured to enable additional questions to be asked, if more detail is deemed important (Decher, 2016). Additional interactions and more in-depth answers, during interviews, might be useful. Not every business can be conducted online. Therefore, the researcher will discuss possibilities with each potential participant whether the products or services they have in mind for their businesses, alongside the required skills, can be provided online. These interviews will be conducted over the phone.

2.5.2 Semi-guided participant observation

Observation provides a systematic approach to 'watching' inquiry, as it is guided by the reasons for observing and interest in obtaining data on events, occurrences, processes, reactions, and relationships in natural settings (Smart, Peggs, & Burrige, 2013). Participant observation is where the researcher is embedded in the phenomenon (Jorgensen, 1989), as in the case for this intervention. Observation can be structured, semi-structured and unstructured (Gillham, 2008; O'Leary, 2013). In this research, observations will be semi-guided or semi-structured for flexibility to collect a range of types of data about participants practices or learning behaviours. The researcher will use an observation guide to remain focused on specific aspects to be observed. These observations will take place during the video conference discussion sessions.

2.5.3 Moodle logs and learning analytics

LMS Logs provide a source for information about learner-learner interactions or learner-content interactions (Lu & Law, 2012). These log data record all activities in forms of learner ID, time stamp, clicks per activity, and IP address. Beyond these data, Moodle has more sophisticated functions, including activity completion, grades, and course reporting (Horikoshi, Noguchi, & Tamura, 2018; Moodle, 2019). Moodle logs have been analysed to refine interventions (Tull, 2011). When logs are used in educational research, they help interpreting the learners' path, through tracked information about what participants focussed on and the frequency, length of time and level of their inquiry (Michaloudis, Molohidis, & Hatzikraniotis, 2018). Learning Analytics (LA), available in LMS platforms, such as GISMO, MOCLog, and Learning LAe-R Analytics Enhanced Rubric provide powerful information about learner's performance and interactions and their learning progress (Mwalumbwe & Mtebe, 2017; Yassine, Kadry, & Sicilia, 2016). The researcher will use different logs and LA reports, to explore the online behaviour for the START Program learners.

2.5.4 Initial and final practical tests

Among common methods used in education to measure learning outcomes, there is test-based measurement (Caspersen, Smeby, & Olaf Aamodt, 2017). Tests can be more objective for measuring the learning outcomes and have the capacity to measure different competencies, dimensions, or knowledge domains (Humburg & van Der Velden, 2015). In vocational education and training (VET) in Australia, competency-based assessment is used for training programs (Kelly, 2009). Competency-based assessment has been criticised for its inability to recognise the underpinning knowledge (Kelly, 2009). However, learning activities

can used to assess skills and knowledge attainment at the same time (Brilingaitė, Bukauskas, & Juškevičienė, 2018). In this research, practical tests will be used at the beginning and end of each module, to enable an assessment of progress of knowledge and skills for the START trainees.

2.5.5 Feedback surveys

Surveys are widely used to collect large amounts of data (Sarlis & Gallhofer, 2014). Surveys enable the exploration of the correlations among the variables of interest (McBurney & White, 2010). In this research, there will be two kinds of surveys: End-of-Module Feedback Survey and End-of-START Feedback Survey. START Training Program participants will be invited to answer these surveys, which will be accessed via the START LMS, to report their experience during each module and for their overall learning experiences during the START Training Program. Answers to the End-of-Module surveys will help refine the module just completed for future cohorts of participants and the next module in the sequence. Moreover, the analysis of the End-of-START Survey will be used to draw a bigger picture about trainees' progress and help in organising and preparing for the Follow-Up Interviews.

2.5.6 End-of-START follow-up interviews

Interviews are very useful research methods to investigate areas that would otherwise remain unknown to the researcher (Decher, 2016). Murphy (2013) highlighted some strategies for interviewing students that focus on solutions to the most important problems. In conducting an interview, there are a number of aspects to consider, including providing information about the purpose of the interview, collecting consents, and deciding whether or not the interviews should be recorded or written or both (Raworth et al., 2019). In-depth interviews (Boyce & Neale, 2006) will be conducted with the START Program trainees to find out more about their experiences related to the program including its activities, processes, and outcomes, and about any changes they may recommend for future programs. Moreover, interviews will help evaluate how successful the START Program was in terms of whether trainees gained employment or developed a viable e-business.

2.6 Research ethics

Research with humans is regulated by legislation that protects research participants to ensure that data collection activities and procedures are conducted ethically (conferring no harm) and the privacy and confidentiality are well maintained (Bryman, 2012; Kelly, 2012; Paoletti, Tomás, & Menéndez, 2013). Although there are some challenges of obtaining consents from refugee participants because the trauma they may recall (Mackenzie, McDowell, & Pittaway, 2007), the current study has very low risk of contributing to participants recall of negative experiences. While some immigrants may also be sensitive to research due to their illegal status or undocumented identities (Liamputtong, 2007), the current study has very low risk, because the study participants are those who have work rights in Australia.

The Consent Form for this study will be available online. Potential participants will not be able to reach to the Consent Form webpage without visiting the Information Sheet webpage. The Information Sheet can be also downloaded as a pdf file. In the Information webpage, there will be a video flyer introducing this study. The Flinders University Social and Behavioural Research Ethics Committee has approved, on 19 June 2020, the research ethics application for conducting this research project (Project Number 8605).

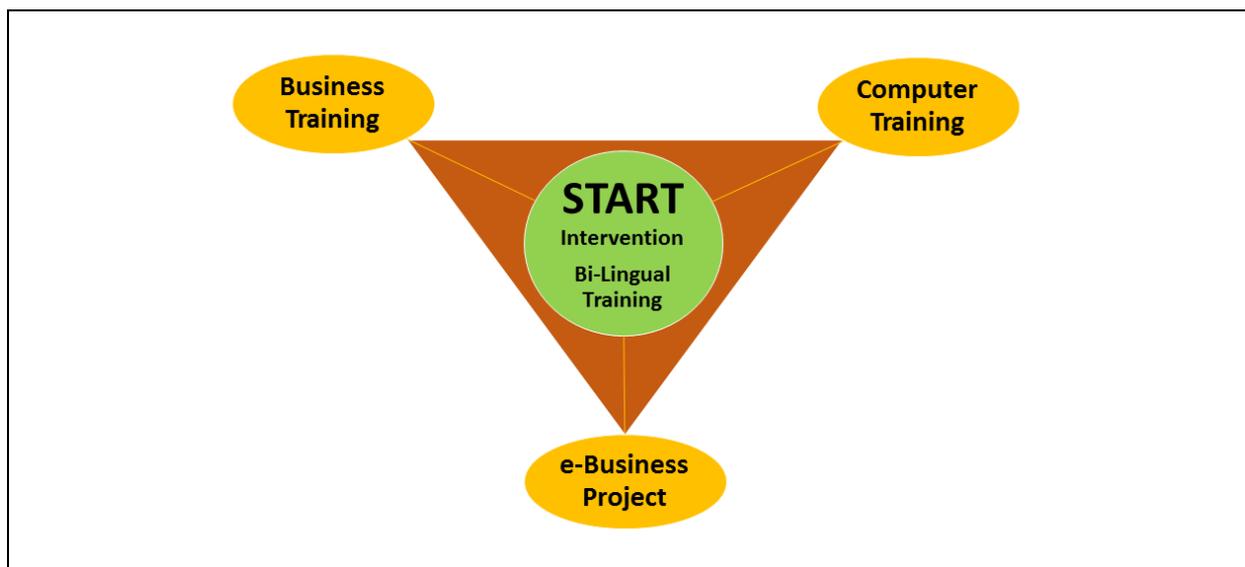
3. Research Significance and Limitations

3.1 Research significance

As discussed above, the unemployment among Arabic-speaking residents (~21%) is three times higher than the unemployment rate in Australia (~7%), leaving about 56,000 unemployed residents. There are some reasons contributing to the extremely high unemployment rate among Arabic-speaking residents in Australia. These reasons include lack of English skills (Cranitch, 2010), lack of ICT skills, lack of professional skills, such as critical thinking, problem-solving, networking, decision making and team work skills (Castellazzi, 2016; Dengler, 2019), and discrimination (Booth et al., 2012). Although governments have founded a number of programs, unemployment prevention, job search assistance and reemployment services, the self-employment assistance programs seem to be more effective, enabling the unemployed participants to work full time in their own established small businesses, which fosters workforce participation and innovation (Wandner, 2018).

The intervention, proposed in this study, will not only help enhance the ICT and English skills for Arabic-speaking residents, but also help them to use these skills to develop their own e-businesses. This intervention is based on English for Specific Purpose (ESP), where the acquisition of ICT knowledge is in parallel with the acquisition of language communication skills (see for example Bargiela-Chiappini & Zhang, 2012; Parkinson, 2012; Tarnopolsky, 2012). The translanguaging approach will be used to maximise the understanding and develop skills in the weaker language, through meaning negotiations (Kafle & Canagarajah, 2015; Lewis et al., 2012). Although previous research has focused on how language learning can be empowered by the use of technology (Goodwyn, 2000; Nguyen, 2013; Thomas et al., 2013), there is a lack of knowledge and research on how to structure a program using a translanguaging approach (Flores & Beardsmore, 2015, p. 218), and for developing ICT, business and language skills simultaneously. For this reason, this intervention focuses on teaching business and ICT skills, simultaneously while mastering the English language skills, by using a bi-lingual translanguaging approach (Figure 5).

Figure 5. The intervention of START training program.



Moreover, Anderson and Shattuck (2012) have pointed out that there is a lack of design-based research conducted in Australia, especially in Vocational Education and Training (VET) settings. Similarly, Bakker (2018) suggested the need for genuine contributions to intervention studies based in vocational education. While previous studies have dealt with the lack of different skills in isolation, this intervention, as proposed, can deal with various concerns including ICT illiteracy, lack of professional/business skills, and lack of English proficiency. This approach can contribute to the shift towards outcomes-based education in general (Hake, 2013; O'Brien, 2013), and specifically make recommendations related to translanguaging approach in educational intervention.

3.2 Research outcomes

Educational design research has two contributions: contribution to education theory and contribution to practice through the intervention that aims to solve a problem through iterative adjustments (McKenney, 2012).

3.2.1 Contributions to the Arabic-speaking participants

- 1) Mastering computer/ICT skills and English skills to become employment-ready
- 2) Establishing personal online businesses, including developing skills that enable trainees to manage their income and expenses, maintain customer contacts, present their products/services, develop and manage their online shopping carts, and manage services/products delivery.

3.2.2 Contributions to the government and community

- 1) Increasing awareness among Arabic-speaking migrants and refugees about the importance of integration and success in Australia.
- 2) Reducing the burden on the Australian Government in budgeting the unemployment benefits and helping in rethinking about better ways to provide skills for the unemployed.
- 3) As businesses succeed and expand, there will be increased employment opportunities for others.
- 4) Contributions to the practices of providing training programs for migrants using translanguaging as an enabler approach to skills education.

3.2.3 Contributions to the discipline

- 1) This study contributes to Design-Based Research, and to its applications beyond formal education settings, namely adult vocational education, and is conducted totally online, to develop and refine the START Program, as a designed learning artefact (the intervention).
- 2) Design-Based Research helps exploring the innovative START educational intervention that addresses challenges in the minority group of Arabic-speaking residents.
- 3) The design-based research approach is a continuous cycle of refinement. By the end of this study, the START Training Program can be optimised. Findings will have implications and potential transfer to other language minority groups of people who require skill training.

3.3 Research limitations

Any study has its limitations and constraints in the research methodology and the research methods (McKenney, 2012; Punch, 2000). Educational interventions are becoming more complex, and therefore, there is a need for a framework that takes a flexible and adaptive approach to address these increasing complexities (Onwuegbuzie & Hitchcock, 2017). As a result of collecting qualitative and quantitative data, there are challenges for design researchers because a lot of data is easily generated (Collins et al., 2004). Although it is advisable for an intervention to have a separate design researcher, research assistants and teacher (Cobb, Confrey, diSessa, Lehrer, & Schauble, 2003), having a team is not possible for this PhD study.

Moreover, collecting the data using a convenience sampling approach involves some bias (Gitlin & Czaja, 2015). However, this limitation is acknowledged for this study and can be justified due to limited time. Furthermore, since this study is an intervention that spans over a period of time, the participants are voluntary, it is expected there will be a low response rate and potentially a high turnover. The researcher will convey the benefits of START Training and participants will be encouraged to reflect on their progress, so they remain motivated.

Translanguaging is used to negotiate meanings (Krompák & Meyer, 2018; Lewis et al., 2012). Unlike the longer time to use translanguaging during the face-to-face module sessions, using an online translanguaging approach will only occur during the video conference discussion sessions to answer trainees' questions, to clarify concerns and/or resolve misunderstandings.

Transcriptions for interviews add further burden to the researcher (Stewart, Shamdasani, & Rook, 2007). Because Arabic speech recognition systems, that transform speech to text, are still facing many challenges (AbuZeina & Elshafei, 2012; Menacer et al., 2017), the researcher decided to avoid transcription and instead record summary notes, which may cause bias in summarisation, but the researcher will check the audio recordings to obtain clarifications and augment the notes.

There are also constraints that will contribute to limitations in optimising the design of the program through the progressive refinement processes (Collins et al., 2004). Although the current study aims to reach an optimal refinement for the START Training Program, it will be realistically difficult to "recreate" the exact learning environment and learning activities in future programs (Zheng, 2016). However, the optimisation will account the teaching and learning processes as well as learners' feedback to make adjustments into START Training Program. The findings may not be directly applicable nor transferable to another context since findings of this study depend on the characteristics of the specific participants in this study.

Declarations

Author Contributions: A.H. conceptualized the research problem and developed the PhD Proposal and this paper; and L.C. and T.A. S. shaped the study and methodology and reviewed and edited this manuscript.

Conflict of Interests: Authors declare no conflict of interests.

Ethics Approval: This research project has been approved by the Flinders University Social and Behavioural Research Ethics Committee (Project Number 8605) on 19 June 2020.

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