Teaching Employability Skills to Arabic-speaking Migrants: Instructional Designer Perspectives

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Abstract: The unemployment rate among Arabic-speaking migrants to Australia is around 21%. A proposed intervention is to scale up English language, computer, and business skills for unemployed Arabic migrants. To answer how we can make our design work and why, we adopted Design-Based Research (DBR). In designing such an intervention, the instructional designer developed an innovative solution to the problem using a systematic ADDIE model. During development, learning plans and instructional objectives were outlined, and some content was selected, and some was developed.

These Arabic-speaking migrants have heterogeneous characteristics. In responding to this, a variation in authentic, sequential, and enjoyable activities was considered. Easy-to-understand materials as well as translations and glossaries were made available to learners. Although online training allows flexibility, online support can be challenging, especially with the translanguaging process.

The designer considered incorporating a number of research methods for the DBR, and this paper covers the development phase of the instructional design of the training, highlighting the tools used to develop the contents and activities of the modules, and the challenges faced during development, especially in ensuring the effectiveness and entertainment aspect of the training in overcoming computer/ICT, English and business skill gaps for different learners.

Keywords: educational intervention, instructional design, Employability skills, ICT/computer skills, English skills, business skills, Chamilo Learning Management System (LMS), ADDIE, Smart Training for Arabic Residents on Technology (START).

Introduction

Employability skills have become an important aspect of the labour market, both nationally and internationally, not only for securing jobs but also for making transitions either between jobs or between organisations (Suarta et al., 2017). In Australia, employability skills include key competencies, and these competencies differ from one field to another (Alrifai & Raju, 2019). In a content analysis study of job advertisements, Rios and colleagues (2020) found that communication skills, collaboration, problem-solving, and time management are demanded in most fields (Rios et al., 2020). However, these mentioned skills are the minimum; workers must master other skills to participate in the job market, including information and communication technologies (ICT) and job-specific skills (Alrifai & Raju, 2019). A study to explore potential causes of unemployment by Prikshat and colleagues (2020) found that a lack of self-management, communication, and teamwork skills, as well as of higher skills such as cognitive, innovation and creativity skills cause deficits in work readiness (Prikshat et al., 2020). It is potentially misleading, however, to group employability skills together, especially when the aim is to solve a skills shortage for a particular group, such as Arabic-speaking migrants to Australia.

Background to Research Problem

The unemployment rate among Arabic-speaking migrants to Australia is around 21%, three times higher than the average unemployment rate in Australia. A number of factors may contribute to their unemployment, including the lack of English and computer skills (Hanna & Conner, 2020), professional skills (Dengler, 2019), and discrimination on the basis of their Middle-Eastern names (Pinkerton, 2013). Such a lack of skills hinders Arabic-speaking migrants in securing employment in Australia. It is arguable that such a lack of skills may also prevent them from setting up their own businesses and becoming self-employed.

Self-employment is not only a route to overcoming unemployment, it also helps to boost the economy in many ways. In Australia, almost 20% of the workforce is usually self-employed in one form or another, and self-employed people usually transfer the skills and know-how they gain from employment experience into their self-employment (Fitzpatrick, 2018).

Wandner (2018) found that self-employment assistance training programs are generally more effective than re-employment support programs in fostering workforce innovation. In addition, self-employment can arguably be more stable than paid employment (Reize, 2004). Self-employment has increased as the economy has moved towards information and communication technologies (ICT) (Reize, 2004). Although Krug and colleagues (2019) argue that the more time people remain unemployed, the less likely they are to return to employment (Krug et al., 2019), Reize (2004) has also argued that the probability of self-employment increases as the period of unemployment increases (Reize, 2004). In most countries, there is a negative relationship between the unemployment rate and the self-employment rate (Blanchflower, 2000). Furthermore, self-employment increases not only the probability of employership but also seems to increase net job creation (Cowling, 2020).

Proposed Solution

An educational intervention is proposed which aims to improve the English, computer, and business skills of unemployed Arabic-speaking migrants to Australia, so they can establish their own businesses (Hanna et al., 2020). With this goal in mind, the designer has developed this proposed solution using a systematic process called 'Instructional Design ID' (Cernusca & Ionas, 2014). To test the effectiveness of the intervention, research needs to be conducted.

Research Methodology

Design-Based Research

Design-based research (DBR) is less controlled than typical experimental research. In DBR, researchers may introduce an artifact into a learning environment and co-participate in the design of curriculum, materials, and instructional strategies; but before conducting an interventional study, the intervention needs to be described in "explicit terms so that it can be implemented" (O'Donnell, 2005, p. 231). DBR uses a *progressive refinement approach* (Collins et al., 2004, p. 33). In answering how we can make our design work and why, the present study adopted Design-Based Research (DBR). Theoretically, both researcher and designer should be working together to refine the intervention (Rodríguez, 2017); however, this is not possible considering it is a PhD study, where the notion of a team is not possible. 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).

Educational Intervention

The educational intervention proposed was named 'Smart Training for Arabic Residents on Technology' (START). In its final phase, START aims to help Arabic-speaking residents establish online businesses. In progressing towards this outcome, business skills will be developed along with corresponding ICT/computer skills. Indirectly, and through various educational activities, listening to and watching the modules, writing offers, brochures and business plans, reading about the market and competitors, and speaking about their products and services through advertisements and support discussions, the participants' English skills are predicted to be enhanced.

Instructional Design

To produce the START Training, the designer followed the systematic ADDIE model for instructional design: Analyse, Design, Develop, Implement, and Evaluate. In each instructional episode, there are three levels: guided learning, independent practice, and authentic action (Branch, 2009). In the analysis phase, and after determining the learner's needs, the designer identified the learning resources, from the content to the technology and facilities.

In the design phase, the desired skills to be developed were identified by composing performance objectives and developing an inventory of tasks. In the development phase, learning plans and instructional objectives were outlined and followed by selecting and developing content for each module, including texts, pictures, animations, and audio-visual material, as well as a syllabus. This was in line with Sweller's (2011) argument that presenting information multi-modality has considerable benefits to learners. In the implementation phase, after the instructor is prepared, it will be time to conduct the training and prepare learners. In the last stage, evaluation of successes and areas for improvement will be identified after analysing the data collected through a questionnaire, semi-structured interviews, log data, and participant observer's notes, as well as learners' participation in the tasks and quizzes. Many of the proponents of inquiry in DBR are originally derived from instructional design (McKenney, 2012). DBR involves collaborative activities at intersections of three spaces, Learning/Practice, Design, and Research (see Figure 1, below), in which the practitioner (educator) and researcher are both involved in the design (Cernusca & Ionas, 2014).

Figure 1: Intersections in Design-based Research

Design–Practice Intersection

In designing and developing the START intervention, the instructional designer has considered how to meet learning objectives and reach the desired outcomes of the training by following the steps of the ADDIE instructional design model, so a unique learning experience can be achieved (see Figure 2, below). The content of the START Training modules was developed using Articulate 360 Storyline and the audios in these modules were produced using Google Text-to-Speech API. Modules' quizzes were created using iSpring Quiz Maker. The START Training's modules, activities and quizzes are prepared in certain "Learning Path", a feature available in Chamilo learning management system (LMS).

No	Business Training	Computer Training
01	Assessment of Business Idea	Exploring Competitors by Experiencing Internet Navigation
02	Understanding Business Structure & Obligations	Searching Professional Online Databases
03	Building Business Plan	Learning Microsoft Word
04	Record Keeping for Income & Expenses	Learning Microsoft Excel
05	Building Business Presence	Learning Microsoft PowerPoint
06	Maintaining Customers Database	Learning Microsoft Access
07	Basics of Social Media and Marketing	Learning Facebook Group & Page Creation
08	Experiencing Email Marketing	Learning Microsoft Outlook
09	Understanding Online Professional Image	Practicing Development Website through Website X5
10	Selling Online	Building Shopping Cart using WebsiteX5
Project	Practicing above Business Skills	Practicing above Computer Skills
	and Practicing Setting up e-Business Project	

Skills	English Training
Listening	Listening & Watching Leaning Modules
Reading	Reading Transcriptions, Glossaries, Extra Resources
Writing	Writing Ads, Brochures, Business Plans, Marketing Emails etc.
Speaking	Speaking in Advertisements and Support Sessions

Figure 2: START Training Intervention and Design–Practice Intersection

Design-Research Intersection

During the design of the START training, consideration was given to incorporating the selected research methods into START's Chamilo LMS. Two types of data will be collected: data about the learning activities (Logs and Quizzes) and data from participation in the research methods (Survey, Observer Notes, and Tests). Tests and Surveys are built using Chamilo LMS functionalities. Most of the collected data are to be kept on the Chamilo LMS (except the notes taken during participant observation occurred in Skype support sessions), which will be analysed later (see Figure 3, below).
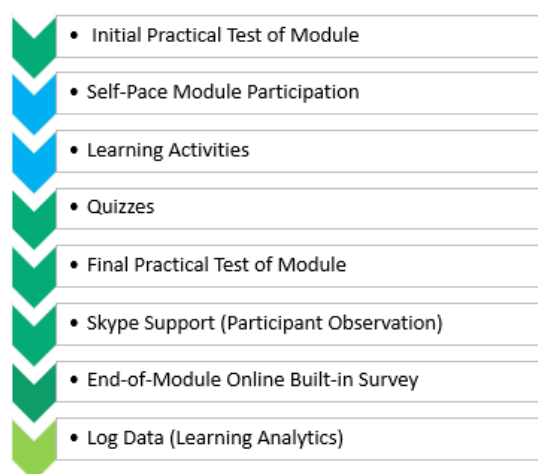
- Initial Practical Test of Module
- Self-Pace Module Participation
- Learning Activities
- Quizzes
- Final Practical Test of Module
- Skype Support (Participant Observation)
- End-of-Module Online Built-in Survey
- Log Data (Learning Analytics)

Figure 3: START Training Intervention and Design–Research Intersection

Practice–Research Intersection

During the implementation of the START training, data will be collected, as mentioned above, and stored on the Chamilo LMS on Linux server. These data, along with the participant observer's notes, will be analysed to determine whether the design of the START Training needs to be refined and how (see Figure 4, below). Although it may look that the designer has no role in this practice-research intersection, the designer has their views and skills in suggesting how START training can be refined.

Figure 4: START Training Intervention and Practice–Research Intersection

Discussion and Conclusion

There are a number of challenges in conducting this study. The Arabic-speaking adults participating in this study have heterogeneous characteristics: their age, ethnicity, culture, education level and field, occupation, health and cognition status, living arrangements, skills/abilities, etc. (Czaja, 2012). Such heterogeneous characteristics will add challenges when it comes to making sense of the results of data analysis in order to refine the training. In designing the START training, although variations in activities were considered (Seel et al., 2017), such variations were deemed to add extra challenge every time the START training is developed and refined. While translations and glossaries are to be made available to learners, amending these resources can be challenging, especially when taking learners' different education levels, English skills, and readability levels into consideration. Such a challenge is also faced with the learning materials. The design of the training, while sequential, is long, which it adds another difficulty for continuity of participation, especially with the lack of funding for incentives. The self-directed learning environment adds another challenge (Väljataga & Laanpere, 2010). However, since this training being online and computer-based, it provides some flexibility to learners to choose a convenient time to access the training modules.

Further, learners will be participating in authentic problem-solving activities, meaning that support must be provided. Another challenge in the START training is the provision of that support; while learners can choose a convenient time for them to access the modules, they have to participate in Skype sessions at certain times if they need support, which will use the translanguaging process (Stroo et al., 2017). Every time the training is refined, the learning activities need to be made more enjoyable and effective, which adds substantially to the effort required, considering this is a PhD study in which the researcher is also the designer of the intervention and the educator. To conclude, while the new technologies, technological possibilities, and the focus on learning outcomes brought challenges to the instructional designer (Law, 2017), the designer is also happy to attest to the novelty of the design.

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