



**THE IMPACT OF UTILISING MOBILE ASSISTED
LANGUAGE LEARNING (MALL) ON VOCABULARY
ACQUISITION AMONG MIGRANT WOMEN
ENGLISH LEARNERS**

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ABSTRACT

Aim/Purpose	To develop a framework for utilizing Mobile Assisted Language Learning (MALL) to assist non-native English migrant women to acquire English vocabulary in a non-formal learning setting.
Background	The women in this study migrated to Australia with varied backgrounds including voluntary or forced migration, very low to high levels of their first language (L1), low proficiency in English, and isolated fulltime stay-at-home mothers.
Methodology	A case study method using semi-structured interviews and observations was used. Six migrant women learners attended a minimum of five non-MALL sessions and three participants continued on and attended a minimum of five MALL sessions. Participants were interviewed pre- and post-sessions. Data were analysed thematically.
Contribution	The MALL framework is capable of enriching migrant women's learning experience and vocabulary acquisition.
Findings	Vocabulary acquisition occurred in women from both non-MALL and MALL environment; however, the MALL environment provided significantly enriched vocabulary learning experience.
Impact on Society	MALL offers an enriched and interactive medium of learning, and positive, enriched learning experience
Future Research	A standardised approach to measure the effectiveness of MALL for vocabulary acquisition among migrant women in non-formal setting
Keywords	MALL, migrant women, vocabulary, tablet, language app

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INTRODUCTION

This paper presents an approach for utilizing Mobile Assisted Language Learning (MALL) to assist migrant women in Australia to acquire English vocabulary in a non-formal community learning setting. MALL has been demonstrated to be feasible for language learning (Burston, 2014; Stockwell & Hubbard, 2013; Viberg & Gronlund, 2012); however, this is based on learning that takes place within academic contexts where participants are either school children or university students who are literate in their native language, familiar with English, and are in a formal and structured environment. Little research has been undertaken on using MALL for participants who have unique backgrounds, such as migrant women English learners (K. S. Ahmad, Sudweeks, & Armarego, 2015). The research reported in this paper is part of a larger study investigating the learning experiences of migrant women who used an app downloaded on tablets for learning vocabulary in a non-academic community learning context.

The women in this research could be characterised as (i) entering Australia via either the “voluntary/economic” stream (e.g., following their husband’s new employment or looking to build a new life) or “forced/humanitarian” stream (e.g., due to war, thus seeking refuge and resettlement); (ii) having varied native language (L1) backgrounds from pre-literate to highly literate; (iii) having levels of English proficiency from pre-beginner to beginner; (iv) voluntarily attending the community conversational English sessions due to its flexible, non-formal and free program; and v) the majority of participants are fulltime stay-at-home mothers due to sociocultural and personal reasons, some isolated from the wider Australian society.

BACKGROUND

The causes of migration into Australia are either ‘voluntary’ or ‘forced’ (Kunz, 1973; UN, 2013; UNHCR, 2011; Ward, Bochner, & Furnham, 2001). While both have a similar purpose, which is for a better life and future for families, the latter is due to unsafe conditions in their own homeland as a result of political turmoil, war, religious persecution, or some other form of oppression. Upon arrival, families have to adjust into a new life and culture in modern Australian society whilst dealing with emotional and psychological issues, sociocultural and socioeconomic challenges, and learning English as a new language for communication (OMI, 2012).

Coates and Carr (2005), Colic-Peisker and Tilbury (2007), Fozdar and Hartley (2012), and Miralles-Lombardo, Miralles, and Golding (2008) identified one of the common barriers for migrants’ ease of settlement as the lack of English language proficiency. For men, the responsibility of seeking financial stability for the family forces them to go out into the workforce and into society, therefore overcoming the barriers and challenges more quickly than women. Typically, women assume the responsibility of undertaking household duties and engaging in full-time care of families, leading to isolation from the broader community, usually over several years. These women’s lives are strongly influenced by personal and sociocultural factors both pre- and post-migration (AMES, 2011; ECCV, 2009; McMichael & Manderson, 2004). As such they are ready for further education or to find work only when their children are old enough (RCOA, 2010). Meanwhile, an avenue that is available for them to participate in some form of learning and socialising, with the flexibility of bringing their children along, is by going to local and non-profit community-based centres that offer programs on life-skills and also some form of English learning (K. S. Ahmad, Armarego, & Sudweeks, 2013). Even though these programs are non-accredited and short term in nature, they provide the kind of learning opportunity and space that suits the women’s need for a friendly and non-rigid learning environment.

SUPPORT FOR ENGLISH LEARNING

In Australia, funded support for migrant and refugee English learning is provided through the Adult Migrant English Program (AMEP) that aims to help develop the English language skills needed to access services in the community, provide a pathway to employment, training or further study, and

participate in other government programs offered (DIAC, 2008). Learners who are enrolled in this program enjoy a stable and permanent operation that applies state of the art technology to teaching and learning English (Chiu, 2013; Grgurović, Chapelle, & Shelley, 2013).

However, some eligible women have had to forego this opportunity due to personal and sociocultural factors (K. S. Ahmad et al., 2013), migration histories, and fear of engaging in formal education (AMES, 2011; ECCV, 2009; McMichael & Manderson, 2004). Instead, they opt to attend non-formal learning settings at community centres. These programs do not require commitment and run for short durations (for example, two hours weekly, in the morning during the school term). They are intended as a meeting place for migrants and refugees to learn and practice English in a relaxed and fear-free environment. The lessons are somewhat structured but no assessments are imposed. Depending on the availability of funding, some of the community centres also provide a crèche facility so that small children can be near their mothers. Attending these programs is a valuable way for these women to go out and socialise with other people while learning English.

SIGNIFICANCE OF VOCABULARY

A learner with diverse vocabulary can connect with a greater variety of people in their particular areas of interest (Lightbown & Spada, 1993) and become proactive in talking and dealing with issues in detail. Being confident gives these learners the ability to voice their opinion clearly, share ideas and thoughts, or simply make conversation (J. Ahmad, 2011; Elgort, 2011; Nation & Newton, 2009). This increases the chances of having other people understand what is expressed. Learners would be able to grasp ideas and think more rationally, incisively, and become more informed and involved by possessing vocabulary knowledge. This knowledge refers to the size – breadth and depth – of the vocabulary, which includes spelling, pronunciation, syntax, morphology, context, whether it has multiple meanings, and how a word combines with other words (Qian, 1999). In addition, Nation (2000) said that the nature of acquiring vocabulary starts with a new word, then it is enriched and established as the words are met again; in other words, it is a cumulative process. Eventually, as learners' knowledge becomes more established, they are able to see how words are related. Nation and Newton (2009, p. 135) suggested that teaching vocabulary to beginners is more effective if words are pre-taught before they are used in context, and words are explained in the context of listening to a story compared to incidental learning without directly focused attention. Nation and Newton also suggested various ways to teach learners based on their proficiency levels: *beginners*, *intermediate*, and *advanced*.

K. S. Ahmad et al. (2015) found that vocabulary learning is a significant component of acquiring conversational proficiency and competence for migrant women learners. Considering their educational background, English level, native literacy level, and native language system, vocabulary acquisition centring on the speaking and listening branch of language development is seen as useful and beneficial. This could be achieved by way of developing their word bank. A rich word bank facilitates a learner's fluency in speaking and effective writing (J. Ahmad, 2011). A greater number of words in a learner's word bank provide more instruments to work with when putting forward their own ideas and dissecting and examining the ideas of others (J. Ahmad, 2011; Elgort, 2011). These instruments are also useful for reading comprehension, where readers could try and comprehend unfamiliar words that they encounter in the text (Krashen & Terrell, 2000; Lightbown & Spada, 1993).

ADULT ENGLISH LEARNER'S LITERACY

Literacy is about a person's ability to read, write, speak, and listen, and to apply these skills to communicate effectively. The literacy levels of adult English language learners are varied and can be grouped based on their sociolinguistic backgrounds. Burt, Peyton, and Schaetzel (2008) categorised the variety of L1 literacy that is typically found in an English class for non-native English speaking adult learners into the following: pre-literate (learner's L1 has no written form or is in the process of developing a written form, e.g., Aboriginal Australian); non-literate (learners have no access to literacy instruction); semi-literate (learners have limited access to literacy instruction); non-alphabet literate

(learners who are literate in a language written in a non-alphabetic script, e.g., Chinese and Japanese logographic); non-Roman alphabet literate (learners who are literate in a language written in a non-Roman alphabet, e.g., Arabic, Greek, Korean, Russian, Thai); and Roman alphabet literate (learners who are literate in a language written in a Roman alphabet script, e.g., French, German, Spanish).

The L1 literacy is one of the factors that may have an impact on English language learning (Bigelow & Tarone, 2004). Other factors that generally affect English and other second language acquisition include the following: 1) the level of oral and written proficiency in L1, exposure to and experience with literacy in and outside of formal education settings (e.g., the number of years of formal schooling in the home country), 2) learner motivation (Bigelow & Tarone, 2004; Dornyei, 2002; Masgoret & Gardner, 2003; Tarone, Bigelow, & Hansen, 2007), and 3) age, intelligence, aptitude, personality, learning styles, and age of acquisition (Lightbown & Spada, 1993). Bialystok (2002) and (Cummins, 1991) state that L1 literacy helps learners become literate in L2. Collier (1989) found that it took longer for a non-literate L1 learner to learn L2 (7 to 10 years) compared to a literate L1 learner, who took a lot less time.

DESIGNING MALL-INTEGRATED VOCABULARY LESSONS

In designing MALL integrated vocabulary lessons for adult learners, the principles of andragogy (Knowles, 1984) that are widely used for developing adult learning curricula should be considered. These principles are based on five crucial suppositions about the characteristics of adult learners that differ from children's pedagogy (Smith, 2002). These include the following: adult learners are independent and self-directed individuals; they are equipped with experience; they are ready to learn; they are oriented toward being problem-centred rather than subject-centred; and they are motivated (Knowles, 1984). For adult learners, their decision to learn English as a second language in general, and any particular target skills, is influenced by factors such as level of literacy in their native language, culture, past experiences, age, and opportunities to speak English. Fozdar & Hartley (2012) emphasized that there is also the need to consider the learner's previous psychological and emotional concerns such as trauma, settlement and family priorities, or confidence and motivational issues.

MALL integrated vocabulary lessons for varied L1 level learners should also consider Krashen's Input Hypothesis of second language acquisition. The hypothesis proposes that learners acquire language by receiving comprehensible input, that is, by understanding words in context (Lightbown & Spada, 1993). K. S. Ahmad et al. (2015) designed a MALL lesson that addresses Krashen's approach by including vocabulary content that used listening texts and authentic texts to provide more impact to learners, specifically, low literacy learners. Listening texts refers to recorded conversations while authentic texts are those texts found every day, such as takeaway menus, advertising flyers, and bus timetables.

Learning vocabulary can be an incidental process where something is learnt without the intention of doing so. It is also learning one thing while intending to learn another, that is, learning contextually. In contrast, intentional vocabulary learning disregards the context and focuses on word lists or word groups such as antonyms, crossword puzzles, scrambled words, and so forth. Flashcards are also a way to learn vocabulary by using a card with a word, sentence, or simple picture. Another way of learning vocabulary is the use of dictionaries – monolingual, bilingual, and multilingual. In addition, some learners prefer rote learning, which is simply repeating new words until they can be recognized by memory (Nation & Newton, 2009). Applications or apps that are used for language learning, such as vocabulary, can provide rich and varied language experiences (Nisbet & Austin, 2013). According to Graves (2006) learners should be immersed in a wide variety of language experiences so that they learn vocabulary while stimulating their listening, speaking, reading, and writing skills.

METHODOLOGY

This study was conducted in a small suburban community centre in Western Australia. The centre provides community services and learning programs to the surrounding community members. One

of its learning programs is conversational English, a non-formal learning space for people who want to practise basic spoken and survival English. The program is free of charge and open for two hours on every Tuesday morning during the public school term. Most attendees are women even though the program is open to the public. Mothers are allowed to bring along their small children. Women attend this program as a way to be able to leave the house, thus reducing isolation and allowing them to interact, engage, and socialise with other women. Countries of origin of these women include Afghanistan, China, Iraq, Malaysia, Indonesia, the Democratic Republic of Congo, and Japan.

As the coordinator of this program, the first author has regular contacts with the attendees. Due to this convenient accessibility and proximity of the researcher to the participants, the most suitable research approach to use was case study design with convenient sampling technique. Case study design was described by Adelman, Jenkins, and Kemmis (1980) as a 'user-friendly' research method and popular among teachers as the data are 'strong in reality,' with the complexity of 'social truths' acknowledged. These observations and interactions provide a valuable general view to the researcher of the beliefs, values, and attitudes of the participants. The researcher had the opportunity to enjoy a good rapport, to observe how the participants act, speak, and engage with each other naturally, as well as with other people in the community centre. Data for this research was collected through semi-structured interviews with participants. The 6 participants selected for this research were part of (on average) 15 women who attended the weekly conversational English session. Interview data was collected from all 6 participants (Groups 1 and 2), while MALL data was collected from 3 participants (Group 2).

INTERVIEWS

Semi-structured interviews were used as a method of collecting data because they allowed for greater flexibility and leeway (Creswell, 2012; Yin, 2011). In this study, to achieve more extensive follow-up of responses from participants, the order of questions was sometimes changed and some questions probed further. This created richer interactions and more personalised responses (McDonough & McDonough, 1997). According to Miralles-Lombardo et al. (2008), an established rapport between the interviewer and the participants encouraged the latter to speak more openly. To achieve this, help from other participants in the sessions who could speak English a little better was also sought to interpret for the participants. This allowed participants to express their views more deeply and freely in L1. The interviews were audio-recorded then transcribed for analysis.

All six participants attended at least 5 of 10 non-MALL sessions that were conducted. Each participant was interviewed individually before beginning the first session (pre-non-MALL). The participants were interviewed again after they attended a series of 5 non-MALL sessions (post non-MALL). Pre-non-MALL interviews collected demographic data about participants' migration histories, country of origin, the main language (L1) and other languages they speak, their level of education, the ways they learn English, their view of the importance of English, and their perceptions of their own English skills. The post non-MALL data revealed if participants had acquired any vocabulary that was introduced or taught and any changes that had occurred in their perceptions of their English skills. Group 1 (non-MALL experience) provided a baseline for the comparison with Group 2 (non-MALL plus MALL experiences). The themes of the pre-non-MALL questions and prompts were as follows:

Demographic Questions

- Migration to Australia - arrival in Australia, country of origin, age
- Everyday language use and literacy - L1, L2, L3
- Education and work experience pre and post-migration

Pre-non-MALL Interview

- Learning/acquiring English skills – ways to learn English (watch TV/movie, read books)
- Ways of finding the meaning of new vocabulary – use dictionary or ask someone?
- English interaction with family, friends, neighbors, schools, and health and government institution

Post-non-MALL

- Vocabulary acquired from attending non-MALL sessions
- Ways of finding the meaning of new vocabulary – use dictionary or ask someone?
- English interaction with family, friends, neighbors, schools, and health and government institutions

The themes of the pre- MALL and post-MALL questions and prompts are as follows:

Pre-MALL Interview

- Familiarity with tablet, laptop, smartphones, and desktop computer
- Mobile devices – uses, language, and script

Post -MALL

- Ways of finding the meaning of new vocabulary – use dictionary or ask someone?
- English interaction with family, friends, neighbors, schools, health and government institution
- Experience of using the tablet – ease of use; engagement; features – interactivity, videos, audio

Group 2 participants then extended their involvement in this study by attending at least 5 out of 10 MALL sessions that were conducted. Individual participants were interviewed before they began their first MALL session (pre-MALL) and were interviewed again after they attended a series of five MALL sessions (post-MALL). The pre-MALL data was about participants' familiarity with mobile devices while the post-MALL data revealed participants' experience of learning English vocabulary in a MALL environment within a non-formal setting and if any changes had occurred in their perceptions of their English skills.

NON-MALL AND MALL VOCABULARY SESSIONS

The non-MALL and MALL sessions were held within the regular weekly conversational program at the community centre. A total of 10 non-MALL sessions were held, one every week for 10 weeks. This was followed by a 2-week school holiday break when the community centre was closed. Following the reopening of the centre for the new term, the 10 MALL sessions were conducted, one every week for 10 weeks. The time allotted for each session was 2 hours, with 30 minutes used for administrative tasks and tea break, leaving approximately 90 minutes for non-MALL/MALL sessions.

Non-MALL sessions

An example of a topic of conversation in a non-MALL session was grocery advertisements in the community newspaper. Krashen's Input Hypothesis of second language acquisition stated that learners acquire language by receiving input that are comprehensible and impactful (Lightbown & Spada, 1993) . Using a grocery advertisement, which is a form of authentic texts (those texts found in our everyday lives) helped learners, especially low literacy learners, to understand words in context a lot better.

An introduction to the community newspaper was made to attendees. The activities included recognising the front page and title of a newspaper, describing pictures on the front and back page, finding advertisements and inserts, and identifying page numbers. Each attendee was given a current community newspaper available free in the community (Figure 1).

The follow-up discussion revolved around the prices of grocery items, comparison of prices (where one is cheaper or more expensive in one store than in another), in-season fruit, learning to describe items by the weight or the quantifier/container in which they were sold. The examples of vocabulary were a kilo of ____, a bag of ____, a carton of ____, a dozen of eggs, grocery list, cheaper and expensive. The discussion triggered follow-up questions and elicited other vocabulary. Attendees then tried to make a grocery list and shared it with the group.

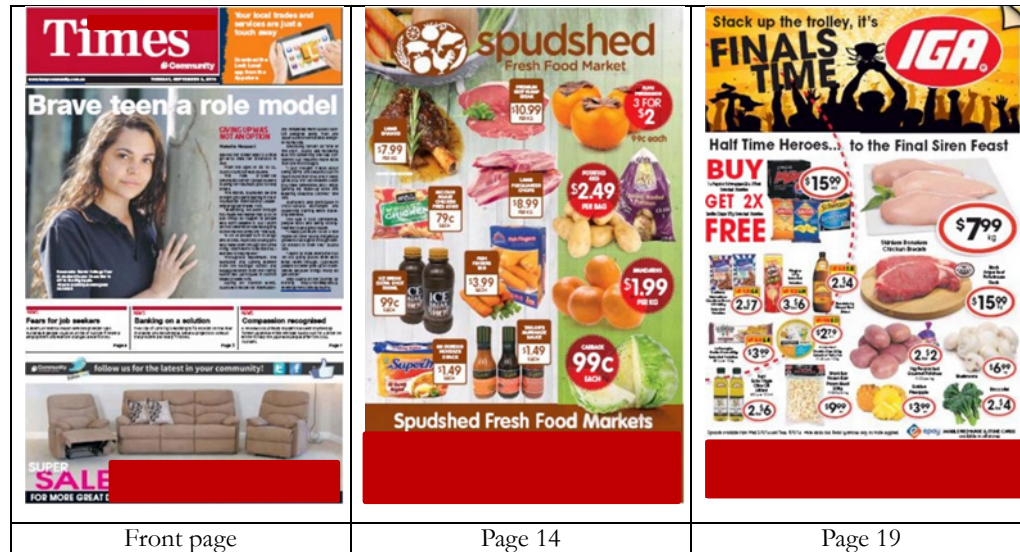


Figure 1. Community newspaper that was used for non-MALL sessions.
From left to right: front page of 2 September 2014 issue; grocery advertisement on page 14;
another grocery advertisement on page 19 (Community Newspaper Group, 2015)

MALL sessions

The community centre supplied ten tablets that were shared among all attendees of the English conversational program. The introduction of the tablet into the program was done gradually to maintain the naturalistic and non-formal feel to the program as much as possible. The following is a sample of how a MALL lesson (K. S. Ahmad et al., 2015) on the topic of Your Health from the *ThinkEnglish!* (AMES, 2016) app was conducted.

- Step 1 *Pre-teach vocabulary (words/phrase).* This step helps learners to understand the meaning and become familiar with the vocabulary (Nation & Newton, 2009). Example of vocabulary for this topic: “sore throat”, “headache”, “backache”, “stomach ache” and “hay fever”.
- Step 2 *Drilling.* This step is used to help attendees practice fluency and become familiar with how the words and phrases are used (Nation & Newton, 2009). The following corresponding sentences are drilled: “I’ve got a sore-throat”, “I’ve got hay fever”, “I’ve got a backache”, “I’ve got a stomach ache”, and “I’ve got a headache”.
- Step 3 *MALL activities.* This is when attendees are given a tablet to work with and paired to undertake vocabulary exercises. Figures 2(a) and 2(b) are examples of the user interfaces on the tablet that the attendees of the MALL lessons were presented with to work on. Figure 2(a) shows the screen capture of a completed matching statement and pic-

ture and Figure 2(b) shows the screen capture of the video part of the exercise. By tapping on the video, a learner could watch the characters having a dialogue between them.

The *Activity* part lets a learner answer the solve questions based on the dialogue. Three answer choices are given, and the selection can be made just by tapping on one of the choices. The *Transcript* part of the activity lets a learner read the transcript of the conversation. The transcript can be read independently of the video, while listening to the conversation when the video was playing. This is useful for reading, listening, and pronunciation practice. Tapping on the play button lets the learner listen, pause, forward or repeat the audio. The exercise can be refreshed and repeated as many times as needed.

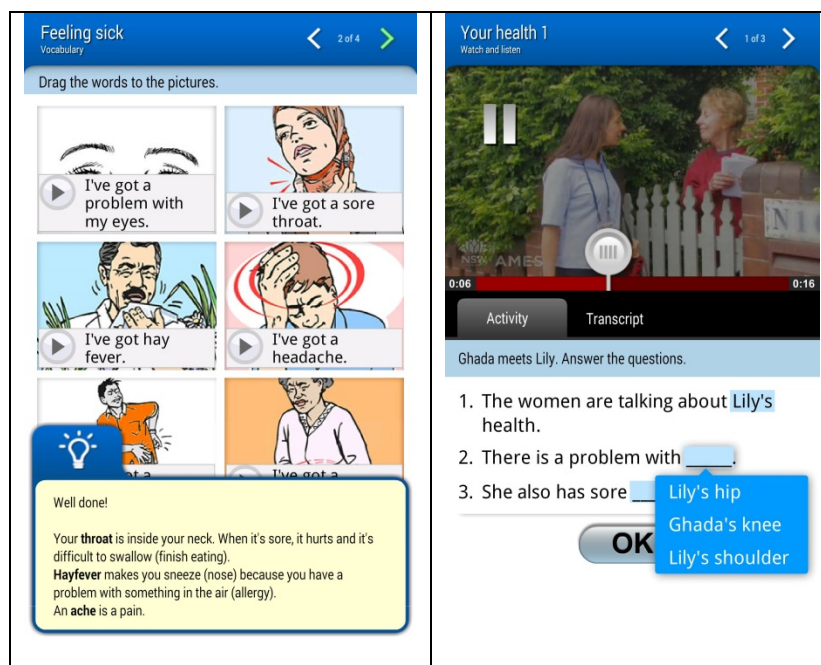


Figure 2: (a) Matching exercise; (b) Video

RESULTS

DEMOGRAPHIC INFORMATION

All six participants were non-native English speaking migrant women. Selection was made using purposive sampling identified through the English conversational program from the case study site. Three participants can be grouped into younger (age range 25–34 years old) while the other three as older (age range 40–60 years old). They have lived in Australia between 2 to 12 years. All participants experienced school in L1 in their home country. Four participants completed high school while one experienced interrupted education and one had 3–4 years of informal primary level religious schooling experience. The confidentiality of the participants is protected by using code names. Demographic data were collected about participants' country of origin and residency status (Table 1).

Table 1. Participants' demographic information

Code name	Age	Country of origin	Years living in Australia	Chronology of residency
Suki	25-29	Afghanistan	4	Citizen of Afghanistan; refugee in Iran; permanent resident of Australia
Rea	55-59	Iraq	12	Citizen of Iraq; refugee in Iran, Malaysia and Indonesia; citizen of Australia
Feeda	25-29	Libya	2	Citizen of Libya; lived in Libya; student visa (spouse) in Australia
Liddy	40-44	China	7	Citizen of China; lived in China; citizen of Australia
Rose	40-44	Congo	7	Citizen of Congo; refugee in Zimbabwe; citizen of Australia
Rina	30-34	Indonesia	2	Citizen of Indonesia; refugee in Malaysia: temporary (protection) visa in Australia

PARTICIPANTS' BACKGROUND**Suki**

Suki was a refugee from Afghanistan who experienced delayed and interrupted education. Suki went to an informal religious school in her village and only started formal schooling in the refugee transition camp in Iran at the age of 12. She completed high school at the age of 20, just before she migrated to Australia. In Australia, Suki enrolled in the AMEP and obtained the Level IV Certificate in Spoken and Written English (CSWE). Suki then enrolled in an adult learner preparatory program to obtain Year 11 and 12 qualifications so that she could enroll in a Vocational Education and Training (VET) course. However, due to personal reasons, Suki had to abandon her studies and career plans momentarily.

Rea

Rea had already lived in Australia for 12 years. Rea, her husband, and five children fled from Iraq and had lived as refugees in Iran, Malaysia, and Indonesia. From Indonesia, Rea and her family travelled by boat to Christmas Island. They lived in refugee detention centres in Christmas Island and Adelaide before eventually settling in Perth. Rea continued her role of a stay-at-home mother caring for her 5 children while her husband went out to work. Rea wanted to be able to speak English at least at the "survival level". Rea could utter "pre-formulated" information when asked to introduce herself: her name, home address, date of birth, year she came to Australia, her age, number of children, and the name of the area where she lived in. This information was memorised by her as it was always asked of her.

Feeda

Feeda, her husband and their two children, aged 5 and 7, came to Australia from Libya. Her husband was on a student visa, while Feeda and their two children were on the family dependent visa. Feeda was pregnant with her third child when she participated in this study. She completed a bachelor degree in Mathematics in Libya, but she said she could not use it here as it was in Arabic. Feeda would like to do a master degree and become a teacher; however, she felt that it would only happen if her youngest child was old enough, her permanent residency status was approved, she had sufficient finance, and her English was good enough. Feeda expressed feeling constrained when communicating in English as she could not communicate as fluently as in Arabic. Feeda had to form sentences in Arabic in her mind and translate them into English before she could utter them out loud.

Liddy

Liddy migrated from China to Australia with her husband and twin sons. The reasons they migrated were for better jobs, better education for their sons, and improved quality of life. In Liddy's opinion, the quality of life in Australia was much better because of low pollution levels, no overcrowding of people, and the natural landscapes made it a beautiful place. Before settling in Perth, she and her family lived in New South Wales and Victoria for 6 years, and Liddy worked as a meat packer when in Victoria. Liddy wanted to explore a new career in the child care industry but she had to obtain the CSWE Level IV before she could enroll in a child care course. At the time of her participation, Liddy was studying for Level III.

Rose

Rose, her husband, and their five children, fled for safety to Zimbabwe from The Democratic Republic of Congo (DRC). Settling in Perth required them to adjust to life in a new country, adapting to urbanised and modern living, and getting accustomed to western culture. Nonetheless, Rose and her family's lives changed for the better; they were happy and felt safe living in Australia. Rose had completed CSWE Level III and Certificate III in a Health Services Assistant course. She worked in the aged-care industry but had to stop working for a while, and had been trying to return to work but could not find a job. Rose planned to study and then work in the child services industry.

Rina

Rina, who was an Indonesian, and her husband, who was a Burmese Rohingya, were refugees who came to Australia to build a new life and better future for their family. Their oldest son was 10 years old at that time and Rina was pregnant with their second child. They started their journey by boat from Kupang, Indonesia to Christmas Island. They lived in detention centres on the island and in Darwin before they were allowed to live in Perth under the Humanitarian Protection Visa. Even though Rina spoke with "broken English", she spoke confidently. Rina had to speak for her family, since she was more proficient than her husband. Accompanying her husband, Rina played a major role when engaging with the Red Cross, which provided the support for Rina and her family while they resolved their immigration status, the Immigration Office, the Immigration lawyers, her son's teachers and school, the housing agent, the doctor, and so forth.

PARTICIPANTS' LITERACY

Data were also collected about participants' first, second and third language (Table 2). L1 is the mother tongue or native language (Lightbown & Spada, 1993). The six participants are a heterogeneous group of migrant women learners with varied linguistic backgrounds and experience with English, which is considered L2 for some participants but L3 for others.

Table 2. Participants' everyday language use

Code name	L1		L2		L3	
	Language	Script	Language	Script	Language	Script
Suki	Dari	Arabic	Farsi	Arabic	English	Roman alphabet
Rea	Arabic	Arabic	English	Roman alphabet	-	-
Feeda	Arabic	Arabic	English	Roman alphabet	-	-
Liddy	Mandarin	Logographic	Cantonese	Logographic	English	Roman alphabet
Rose	Lingala	Extended Latin	French	Roman alphabet	English	Roman alphabet
Rina	Malay	Roman alphabet	English	Roman alphabet	-	-

The participants' L1 literacies are classified as semiliterate, non-Roman alphabet literate, Roman alphabet and non-alphabet (Bigelow & Tarone, 2004; Burt et al., 2008).

Rea is a *semiliterate learner* as she had limited access to literacy instruction. Rea attended school only between 7 and 9 years old. The school's medium of instruction was Arabic. Even though informal, it could possibly have provided Rea with basic literacy skills. Rea could recognise the Arabic alphabets and the sounds, but was not able to read very well.

Feeda and Suki are *non-Roman alphabet literate learners* as they are literate in a language written in Arabic. Feeda's L1 is Arabic, while Suki's is Dari. Both languages are based on Arabic alphabets and writing system. Feeda had a complete formal schooling experience in Arabic. Suki's education was interrupted by the war. Both use L1 to make notes in their notebooks and worksheets during non-MALL sessions.

Rina and Rose are *Roman alphabet literate learners* as they are literate in a language written in a Roman alphabet script, which are Malay and French, and read from left to right. Rina completed high school with Malay as the medium of teaching and learning. Rose also completed high school where French was the teaching and learning medium. Being familiar with the Roman alphabet helped Rina and Rose in copying what was on the whiteboard to their notebook, making their own notes in L1 and reading English texts, though adjustments in pronunciations, sounds, and so forth were needed.

Liddy is a *non-alphabet literate learner* as she is literate in a language written in a non-alphabetic script, which is Chinese. Liddy would easily make notes in Mandarin in her notebook or on the worksheet that was given in the sessions, for example, to remind her of the pronunciation, syllables in English, and so forth. Liddy dropped out of high school when she was 15 years old, but had the opportunity to learn basic English and the Roman alphabets before that. As such Liddy could copy English words easily and read simple English texts.

It was observed that participants' L1 literacy level played a role in participants' vocabulary acquisition. The ability to acquire vocabulary and vocabulary skills depends on their L1 ability and how quickly they can adjust to the differences in their L1 literacy and their English literacy level.

VOCABULARY ACQUISITION

All participants were asked to recall the vocabulary that they had learnt after they attended the sessions. The vocabulary was either in the form of a word or a combination of words that made up a phrase. All participants had somewhat acquired the vocabulary after they attended the sessions. Nation and Newton (2009) suggested teaching vocabulary based on the proficiency levels of the learners: *beginners*, *intermediate*, or *advanced*. All participants in this study were at the beginners' level. According to Qian (1999) and Nation and Newton (2009), at this level, a learner should be able to know how each word was spelled and pronounced and the context in which it is most likely to be used. The higher proficiency level learners would know how the word changes if it is a verb, noun, or adjective as well as other grammar information about it and other words that are often used with it (collocation). These were not asked of the participants as their target was only learning for basic conversational skills.

Non-MALL

Each Group 1 participant (Suki, Feeda and Rea) was able to recall some of the vocabulary from the five or more non-MALL sessions they attended.

Some of the vocabulary that Suki recalled included "occasionally", "sometimes", "often", "always", "seldom" (from the topic on how to express frequency); "may", "please" and "could" (how to ask questions politely); "sideburn", "blonde", "long", "curly" and "wavy" (how to describe types of hair). Being able to recall one word enabled Suki to recall and utter other words.

Suki easily created her own simple sentences using the vocabulary, “Sometimes I come here with my mum” and “The little girl has blonde hair”.

Feeda was able to recall the topic about phoning for a taxi quite easily. She remembered that when making any call, it should begin with polite greetings, such as “Good morning” or “Good afternoon”. Next, the caller should request a taxi politely, such as “May I have a taxi...” or “Can you send a taxi to ...” She also remembered a few of the words that were discussed, such as “location”, “destination”, “drop-off” and “pick up.” Feeda also easily created sentences such as “I drop off my children at school before I come here” and “I pick up my children at 3pm.”

Rea recalled a topic about describing body parts and illness. While pointing to parts of her body, she said the words out loud, such as “knee”, “back”, “shoulder”, “chest”, “thigh” and “ankle”, followed by “back pain”, “shoulder pain”, “stomach ache”, “head ache” and “ear ache”. Rea then tried to recall some phrases but struggled to make sentences (corrected grammatically by the researcher) such as “I have bad back”, “I have pain in my shoulder”, “...very bad pain” and “I have bad headache”. Though struggling, Rea was able to utter these because she was suffering from such illnesses and used them when seeing the doctor. Rea would also use these expressions, though in uncoordinated chunks, when sharing her bad weekend with the conversational group when she had to stay home due to the pain.

Group 2 participants (Liddy, Rina and Rose) were also able to recall some of the vocabulary that they learned from attending five or more non-MALL sessions.

Liddy recalled the vocabulary from a topic that described a person’s facial features: “sideburn”, “part”, “moustache”, “beard” and “jaw”. Liddy found this topic relevant as she said, “It’s important to know how to say these things, for instance, when you get mugged, you have to tell the police what the mugger look like”. Liddy also highlighted a related discussion on how to describe a person’s hair; for example “black, straight and shoulder-length”, “curly, long and blonde”, “short and spiky”, and “bald”. Liddy said she then knew how to describe her sons’ hair: “My sons have short and spiky hair”.

Rina said the activity that she liked was the one where the researcher used the community newspaper to look at supermarkets’ weekly catalogues (Figure 1). Rina was able to remember the activity and some words and phrases: “We use the newspaper, we compare how much the price and we see which one cheap”, “a kilo of meat”, “a bag of potatoes”, “a carton of milk”, “a dozen of eggs” and “shopping list”. Rina also offered these sentences: “I want to buy two bags of potatoes from the grocery store” and “Can you buy for me three cartons of milk?” Rina was easily able to make sentences that used these phrases in the right context.

Rose recalled the topic on “asking permission politely” and the phrases that were discussed: “Is it OK if ...” “Do you mind if ...” “Can I...” and “May I...” Some of the possible answers to these requests would be, “Sure”, “No problem” or “It depends”. Part of the lesson was to make their own questions/requests and the other person to answer, using these phrases. These phrases were new to Rose and most of her peers. Rose found this vocabulary useful as it made questions sound polite. Rose was also able to use the new vocabulary in the correct context.

All participants had somewhat acquired the vocabulary after they attended the sessions. As semi-literate in L1, Rea could not demonstrate great depth or breadth of knowledge about the vocabulary as suggested by Qian (1999). This is in line with Collier’s (1989) study that found it would take a long period of time for a non-literate or semi-literate person to learn L2, and some could never catch up with their L1 peers. However, J. Ahmad (2011), Elgort (2011) and Nation and Newton (2009) said, though with this limitation, a learner is able to become proactive and can talk in some detail about a relevant and particular issue if it is a recurring situation. The health issue was relevant and significant to Rea, so with this little knowledge and words embedded in memory, she was able to communicate confidently with her doctor and her peers in the group.

Being literate in L1, though at varying levels, it was easier for Suki, Feeda, Liddy, Rina, and Rose to acquire the vocabulary for the beginners' level proficiency learner as they demonstrated they knew the spelling and the pronunciation of the vocabulary and were able to use them in various situations or contexts as suggested by Nation and Newton (2009) and Qian (1999). More exercises at this beginner level on various topics should be undertaken by all six women for more exposure, more accumulation of words for their word bank, and also more opportunities to use the vocabulary and speak English. As Collier (1989) found, it is easier for L1 literate individuals to acquire L2. Bialystok (2002) and Cummins (1991) said that L1 literacy plays an important role in helping learners become literate in the L2.

MALL

Following the series of 5 non-MALL sessions, Liddy, Rina, and Rose extended their involvement to at least 5 MALL sessions. The MALL integrated vocabulary lessons followed the three steps described above: Step 1 pre-teaching, Step 2 drilling, and Step 3 app based exercises. All three participants recalled activities and vocabulary that were notable to them. The app on the tablet for the exercise was *ThinkEnglish!*

Liddy recalled that the vocabulary activities she did with the tablet was on the topic of describing people. She remembered listening to an audio announcement about a boy missing in a mall. Some of the information that was given by the announcer was that the boy was Chinese, had spiky hair, and was six years old. She also remembered the next exercise on matching statements with the correct pictures; she said "I just drag to the pictures, no need to use pen and paper". Liddy said she enjoyed this particular lesson because it was similar to the lesson she had in the regular (non-MALL) session about describing facial features. However, this time, she could do more activities with the tablet, such as matching exercises and flashcards while listening to audio of related words/phrase/statement, and they were all repeatable. Some of the phrases that Liddy could recall were: "She's got short, blonde hair", "He's got spiky hair", "He's got a beard and a moustache". Liddy explored other exercises on the app when she finished the one that the researcher tasked the group to do for that day. Liddy also mentioned that she liked the part before she started using the tablet where she learnt about the words first (referring to the pre-teaching vocabulary stage).

Rina recalled a video from the exercise "about two woman talking ... one have knee and hip problem". Rina said she watched the video a few times because she did not catch all that was being said. She then tapped on the Transcript tab to listen while reading what the people were saying to each other and listening to the correct pronunciation. Some words that Rina recalled were: "I've got a sore throat", "I've got hay fever", "What's the matter?" and "Thanks for asking." Rina recalled another topic about listening to a phone message. It was a message from a car mechanic who was letting "Sam" know the cost for Sam's car repair. Rina recalled the words: "This is a message for ..." and "Call me back". Rina recalled that she did a lot of matching exercises where she could listen to the audio when she "dragged" a statement to match the answer. Rina also attempted a lot of flashcard exercises where there was audio when a statement or a card was swiped. Rina explored and attempted other sections and exercises on the app when she was finished with the one assigned for the day. She also liked that she could stop, pause, continue, and replay everything on the app.

Rose recalled the vocabulary from two different topics: one was about describing broken things in the home and one was about how to place an order at a café. Rose thought the activities were not boring her, but she was distracted by the noise and the children in the room. Rose thought it was good that there were many exercises and she could repeat them numerous times. Rose shared the words/phrases that she remembered from the lessons (corrected grammatically by the researcher): "The computer is broken", "The tiles are cracked", "The stove's not working", "Can I have my receipt, please?", "What would you like today?", "I'll have a coffee, please?"

Rose expressed that she was happy attending the non-MALL and MALL sessions because she learnt many useful words but she did not always remember to use them.

Liddy, Rina, and Rose had somewhat acquired the vocabulary after they attended the MALL sessions. They could recall some of the vocabulary that they encountered. As all three were L1 literate, it was easier for them to understand the vocabulary. They were considered to have somewhat acquired the vocabulary because they knew how each word or phrase was spelled, pronounced, and the context in which it was most likely to be used. Being Roman-alphabet literate was an advantage for Rina and Rose because, although they struggled in English, they could practice and try to adjust their L1 and English. Although Liddy used Chinese for reading and writing, her earlier brief exposure to English helped her in reading instructions or texts on the tablet (Liddy was an excellent speaker but struggled to read and write). This is in line with Collier's (1989) study which found it would take a shorter period of time for L1 literate learners to learn L2 compared to non-literate or semi-literate L1 learners. Bialystok (2002) and Cummins (1991) said that L1 literacy plays a significant role in helping learners become literate in the L2.

MALL LEARNING EXPERIENCE

For Group 2 participants (Liddy, Rose, and Rina), data on familiarity and use of mobile devices were collected (Table 3 and Table 4).

Table 3. Liddy, Rose and Rina's familiarity with computers and mobile devices

	Number of years of using device			
	Desktop Computer	Laptop	Mobile phones	Tablet
Liddy	12	10	2	-
Rose	7	1	2	-
Rina	-	1	2	2

Table 4. Liddy, Rose and Rina's use of smartphone

	Liddy	Rose	Rina
Make calls	√	√	√
Video chats	√		√
Texting/messaging	√	√	√
Watch movies/videos	√	√	√
Use social media	√	√	√
Navigation - Maps/GPS	√	√	√
Email	√	√	√
Use apps	√	√	√
Listen to music	√	√	√
Play games	√		
Take pictures	√	√	√

Liddy

Liddy did not own a tablet, but after the first MALL session, she was considering purchasing one for herself. She thought owning one would be convenient “so that I can learn something in my spare time.” She said the size of the tablet made it easy to carry around compared to her laptop. She could also slip it in her handbag and even use it in bed. She found the tablet easy to use since it had similar features to her smartphone. Since the tablet could access the Internet, Liddy used the online dictionary instead of using her regular electronic dictionary.

Liddy had thought of downloading the *ThinkEnglish!* app to the smartphone, but that would use up a lot of memory and storage. Liddy also commented that the audio and video components of the app provided good visual and listening exercises because it let her listen to a wide range

of conversations by Australians. The various accents let her hear how Australian native English speakers talk. Liddy thought that the presence of the researcher as the “teacher” was important as sometimes she needed to ask questions or clarify some things. The other issue Liddy had was the noise in the room. She preferred if the children could be located in another room so that there would be less noise and everyone could focus better.

Rose

After experiencing the tablet in the MALL sessions, Rose thought that it was easy to use, even though she had never owned or used one before. Rose said, “It’s easy to use... quite (the) same with my phone. But it’s bigger, I can read the Bible”. Rose added, “The tablet (works) like the laptop but cannot type letters. I can get Internet ... I can get a lot of information and answers ... can watch YouTube too. Can watch how they speak English in the videos.” Rose also said that it was good that she did not have to write anything down for the exercises; instead, she could select the right answer just by tapping on a picture or icon, or she could *drag* an answer for the matching question or just *swipe* when practicing with the flashcard.

Rose commented that she could not focus much on the tasks because the room was too noisy. The noise came from the attendees of the session who were talking and/or discussing, the children, the tablets when the volume of each tablet was put on high because the user(s) was doing the listening practice part of the app. Rose also had to keep an eye on two children (whom she babysat and brought with her) and the other children who were there as well, who might be playing rough with each other or fighting over a toy. In Rose’s words, “I cannot focus so much. I always think about my children. I’m always aware of things because I’m a mother. And there’s too much stuff in my head.” Rose thought that if her surroundings were peaceful and quiet, she would be able to concentrate better on the tasks.

Rina

Rina commented that, “It’s easy to use this tablet. My children have them ... like my phone”. Rina said she preferred using the tablet than books for learning English because “I can just use one tablet ... I don’t have to carry many books ... heavy. We can find a lot of things from the tablet, like the big computer, it has internet”. By watching the videos on the tablet, Rina said she could see the people’s faces while they were talking and hear how they pronounce words. She could pause or replay certain parts she missed or did not hear properly. There was also a transcript of the conversation that could be referred to (just by tapping the Transcript button) and flashcards with pictures and audio for vocabulary exercise.

When asked if Rina could do the exercises on the app independently, she said that she might be able to do it at home but was not sure she would do it. She added that she would need a teacher figure and a classroom-like environment to be able to feel like she was learning. However, Rina proudly added that she sometimes used the Indonesian-English dictionary app that she downloaded on her tablet and smartphone. Rina used the tablet interchangeably with her smartphone when finding online information such as recipes and reading the news about Indonesia and Myanmar.

Liddy, Rose, and Rina were able to navigate around the app and the tablet’s functionality with ease. These skills were easier to acquire because of their familiarity with the English language (being the language used in tablet), their own English literacy level, their L1 literacy and also being familiar with computing devices such as the laptops and smartphones. They also used their own initiative to do extended exercises within the sections assigned and further sections.

DISCUSSION

The study participants reported more positive and enriched learning experience in MALL compared to non-MALL. The design of the MALL lesson includes pre-teaching, drilling, and app-based activities that addressed Krashen and Terrell's (2000) approach, as it included vocabulary content that used listening texts, and authentic texts to provide more impact to learners, specifically, adult beginner level learners. Authenticity in learning should encourage learners' needs and interest to engage in real-life tasks and activities. The MALL lessons included items from both incidental vocabulary learning (J. Ahmad, 2011; Choo, Lin, & Pandian, 2012) and intentional vocabulary learning (Nation & Newton, 2009) approaches. These components of the MALL lessons provided enriched learning experiences compared to the conventional learning approach, where lessons were conducted in a traditional method using a marker, whiteboard, and printout of pictures (to provide visuals).

The app-based vocabulary exercises with embedded audio and video components provided good visual and listening exercises as the learners were exposed to a wide range of conversation topics and characters with varied Australian accents. The tablet, as the mobile device for MALL, had the features and functionality that made this possible (Ball, 2011; Klopfer, Squire, & Jenkins, 2002; Nisbet & Austin, 2013). Participants were given more activities to attempt, such as matching exercises and flashcards, watching videos, listening to the audio of words/phrase/statement or conversations, and repeating the activities. Generally, the activities did not bore participants; in fact, they explored other exercises on the app when they finished with the one tasked.

Tablets are suitable for language learning as they are mobile, portable, and lightweight and can be carried around, as opposed to sitting at a desk with a laptop/computer (Klopfer et al., 2002; Nisbet & Austin, 2013). All participants commented about how the tablets were light and, with their size, could be slipped into a handbag. Participants also commented on how the tablet is "compact" in that they could find a lot of information, they could use dictionaries or translation apps for different languages and have them all in one place eliminating the need to carry physical books or flashcards. The features and functionalities of the tablet as a mobile device are beneficial and useful as it is the tool for the MALL environment. These features and functionalities can be characterized under portability, connectivity, context sensitivity, and individuality and social interactivity (Klopfer et al., 2002).

Portability refers to how both the user and the tablet is portable and that the tablet can be used online and offline. The *ThinkEnglish!* app that was used for the MALL lesson was downloaded onto the tablet, thus learning can take place without constraint, anytime and anywhere, provided the tablet has battery life available. However, for this research, the participants only used the tablet when they attended the MALL session at the community centre.

Connectivity refers to the ease of connecting the tablet to the internet for access to learning material. In this study, the app was downloaded using the Wi-Fi connection available at the community centre. The internet was used by participants to search for information such as the translation of an English word to their L1.

Context sensitivity refers to the context awareness of the app with users' interaction. For example, participants interact with the app interface by tapping, dragging or swiping their fingers on a button or a bar. The app is designed for easy navigation for beginner English learners. The participants are also alerted, by highlights or blinking cues and prompts, for correct or incorrect answers. Alerts are also shown when participants completed an exercise and ready to move on to the next level. This feature is similar to their smartphones, only the tablet has a larger screen.

Individuality and social interactivity features of the tablet refer to personalized or customized learning that the participants can choose. Participants can learn vocabulary at their own pace, repeat the lesson, replay audio or video, pause, go back, forward, or skip some parts of the app. Participants have a choice of using the tablet individually and personalizing their learning, or learning collaboratively with other participants.

However, in providing a MALL-integrated vocabulary learning environment for migrant women English learners, a number of factors need to be considered; for example, the selection of the language learning app as the learning material, the learners' target skill, L1 literacy, English literacy level, or any combination of these (K. S. Ahmad et al., 2015). As some participants said, there is also the need of a teacher/tutor figure to guide and support them to learn. The presence of the teacher/tutor figure provides some form of structure or control, to ensure the lesson goals are achieved even though the learning setting is non-formal, and so as to ensure the participants' learning needs are met.

CONCLUSIONS

This paper reported on the positive effects in six migrant women's vocabulary learning in a non-formal environment after undertaking a series of non-MALL vocabulary lessons, as well as enriched vocabulary learning experienced by three of these women after undertaking the MALL vocabulary lessons. The participants have lived in Australia between 2 to 12 years, but still struggled with English, especially spoken English. The participants' immediate concern was their speaking skill, which was their incentive for attending the conversational program. The other skills – listening, reading and writing – were not of immediate concern as these skills required a formal learning that they were not interested in.

For practitioners wanting to implement MALL, the MALL lessons offered should follow three steps: Step 1 – pre-teaching of vocabulary and phrases; Step 2 – drilling to help practice fluency and become familiar with how the words and phrases are used; and Step 3 – completing the exercise using the app downloaded on the tablet.

The findings show that some form of vocabulary acquisition occurred in women from both non-MALL and MALL environment, where the MALL environment provided significantly enriched vocabulary learning experience. The study demonstrates that it is feasible to utilize MALL for migrant women to learn vocabulary, in a non-formal environment, provided the design of the MALL lessons are based on these considerations:

- Utilise the features and functionality of the tablet and as they contribute to the enriched learning experience.
- The selection of the vocabulary app for MALL must consider L1 literacy, L2 proficiency level, target skill of learner, topics of interest to participants with authentic content, useful, and relevant for everyday use.
- How L1 literacy affects vocabulary acquisition in L2.
- The naturalistic and non-formal feel of the learning environment to be maintained even with the insertion of the tablet as a learning device.
- The learners should be given the opportunity to collaborate, engage, and interact with their peers and should also be able to use what they have learnt to communicate meaningfully with people.

A limitation of this research was that, during the tablet/app-based activity in the MALL sessions, research participants did not have the opportunity to pair themselves with partners with similar L1 literacy, English proficiency level, and experience in using a tablet. All attendees of the MALL session had varied L1 literacy and English proficiency backgrounds. Unequal pair-work resulted in slowing down of activities due to interruptions, for example, time needed to explain or translate instructions from English to another language, or explaining how to operate the tablet. A possible solution would be for each learner to have their own tablet rather than sharing with another learner.

Future recommendations for this research include:

- Developing a method for measuring the effectiveness of MALL for vocabulary acquisition among migrant women in a non-formal setting. A quantitative study with a larger number of

women could be undertaken provided that a standardised benchmark is used to group the women based on L1 literacy level and English proficiency level.

- A study on the MALL design and implementation for personalized learning for migrant women learner. This could include the development of an app that uses L1 as a supporting language.
- A comparative study on the impact of MALL on migrant women from different countries as each country has unique education system and literacy background.

In conclusion, this research has shown that MALL is feasible for migrant women language learners, not just for the usual population of studies who are literate in L1, familiar with English, and are educated in a formal and structured learning environment. This paper advances the research in MALL, where migrant women's vocabulary acquisition and learning experiences are enriched and enhanced even though they possess varying levels of L1 literacy, varying levels of English proficiency, and the only opportunity to learn and use English is through non-formal learning settings. With vocabulary acquisition, the size of their word bank is increased, therefore increasing their confidence in engaging in conversations with other people in the wider Australian society.

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