A STUDY OF INTERNATIONAL STUDENTS USE OF DIGITAL TECHNOLOGY TO ASSIST IN SECOND LANGUAGE LEARNING

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Abstract- This study was designed to explore the sociocultural experiences of Saudi international students studying English as a second language in an Australian tertiary institution. The research adopted a mixed method approach and from the qualitative data emerged the growing importance of the digital technology for these students as a means for improving language learning and social inclusion. Eighteen students volunteered for interviews and described the use of technology mediated resources to develop their language learning. The following are examples of technology supported inside and outside the classroom: emails, applications on mobile phones, YouTube, online tutoring and the university software management system. Findings suggested these students had positive attitudes toward online interactions and felt they enhanced learning and assisted in developing meaningful intercultural communication.

Index Terms- Digital technology, international students, second language learning, sociocultural theory, Social Network Sites (SNSS)

I. INTRODUCTION

Looking at the mobility trends of international students worldwide, the majority are studying in English native speaking countries (e.g., Australia, Britain, Canada and the United States). For the international students, studying English in countries, like Australia, that have well-developed educational facilities and English language is the dominant language there is an advantage compared to students who learn English in non-English speaking countries [1]. English language proficiency in this globalised world has become essential and an important commodity [2].

Students intending to study in English speaking countries, for whom English is not the first language, are required to meet specific English language criteria to be able to enroll in education institutions in the host country [3]. Studies have shown that while English language abilities can influence the international student experience (e.g. [4]), there are also cultural and social practices that have been part of the background experience for these students and these aspects of experience could make their adaption to the new environment easier, or inhibit them from having a smooth transitional experience [5]. On the other hand, the educational and learning environment of the university could contribute to these challenges, where for example, the teaching styles and the workload are overwhelming for international students and may impact on social adjustment to the new environment [6], [7]. This research has found that digital technology is important for the students’ experiences in their second language learning.

II. THE RESEARCH

- Technology and second language learning

The technological environments [such as Social Network Sites (SNSS), tutoring websites, smartphone applications] are increasingly becoming an integral part of the education settings in our current time [8]. In this sense, they are becoming part of the social context of the learners and in some learning situations, they can be used as active learning strategies by students [9], [10].

The history of the use of technology and language learning pedagogy goes back as far as the 1960s [11]. However, in recent years, language teaching pedagogy is witnessing a state of transition from specifically designed language and teaching sources on the computer to the use of online technologies that are embedded in the daily lives of teachers and learners [12]. The advantages of the use of these technologies are associated with the direct learning of language skills such as building vocabulary, improving speaking skills or writing (e.g. [13]), or indirect skills where they support the language learner’s autonomy, agency and motivation in learning language [14], [15]. The positive uses of technology in language learning and teaching in our time has led Vandergriff [16] to argue “the technology use for language learning and teaching is now promising than ever because the social web with its power to connect people, along with the social turn in SLA (Second Language Acquisition), have created favorable conditions for leveraging the power of new media (p. 19)”.

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Technology has made it easier than ever before to find and access instructional language materials of different types that can be used to develop specific skills [17]. However, the rapid development of handheld technology and the increasing availability of the mobile internet have created new spaces, and greater access and possibilities for communication and collaboration for education purposes [18]. The strength of these SNSS as learning environments is that cultural learning is included in these interactions [19]. When users who are English language learners engage in dialogue in these environments, they are exposed to authentic texts of the English language.

The use of the SNSS has been positively associated with academic and social experiences of international students in their new trajectories. In these environments, the learners can enjoy face to face contacts and build friendships [20]. SNSS friendships is mostly related to their family members and their close friends in their home countries [21]. Having these virtual bonds with their home-based friends and family members facilitates the formation of new connections in their local environments (friends from their cultural background, or co-cultural and the new English language environment). In an empirical study [22] investigated how the interaction on the SNSS with English native speakers can shape the adjustment experience of international students. It was found that the longer the international students stay online with the local English speaker the better social experience they will have. This is an indication of the intercultural knowledge that arises from collaborative dialogue on SNSS [19].

III. THEORETICAL FRAMEWORK

The social turn in second language (L2) research was introduced by an influential paper by Firth and Wagner in 1997. These scholars criticised the approaches that had dominated the exploration of the second language research as they identified the social practices that language learners engage with in their daily lives. The sociocultural theory (SCT), which originated from the writings of the Russian psychologist Vygotsky, provided an alternative in considering language use in real world situations as fundamental to learning language [23]. From this view, language was not considered an input in itself, but a source for participation, where learners could use symbolic mediation to engage in different kinds of activities in daily lives. This theory has language as its central focus and it views language as tool of thought [24].

The main argument of this theory is that human mental activities are mediated through social mediation with individuals and structured environments. The foundational basis of this theory is that the higher psychological developments of the human (such as language) are mediated by cultural constructed artefacts or mediational means [25]. Language is the most influential and pervasive artefact that enables individuals to interact with their external world [26]. The L2 research as development among the L2 learners is not just about the acquisition of second language, but on how this acquisition mediates the development of their communication abilities, their conceptual thinking, perceiving and representing things in their external world [27]. The process of internalisation is not just the mastery of the language structures, but how to gain the capacity to manipulate the L2 artefacts in order to achieve the user’s communicative purposes (appropriation). L2 learning is open to semiotic resources that can be used by learners to regulate their mental and communicative activities. For instance, the learners may opt to diverge from the idealised native speaker norm of language and manipulate their own form in order to meet their communicative and interpersonal needs [27].

Another important principle of this theory is that mediation can take the form of joint activities with other humans. The collaborative dialogues and activities between contextual experts and novices create the metaphorical space of the Zone of Proximal Development (ZPD) where the development of higher psychological functioning is located [26]. This social interaction results in the cognitive development of learners, where these functions are internalised and then reappear on the social plane (intrapersonal or interpersonal). For the L2 learners, the presence of an expert (either a teacher, or a peer) allows them to experiment with language by repeating, correcting, guessing and restoring knowledge. In expert-to-novice joint activities, the L2 learners can practice their language by gaining more control over it. According to Lantolf [28] “it is in the ZPD that individuals are able to perform at higher levels of ability than they can alone, and in so doing eventually internalize the mediation provided by their con-specifics, which results in enhanced development” (p. 32). Researchers [29] found that the development of the ZPD may change with the level of different types of mediation (i.e. more implicit or explicit) and this may influence the control of language learned. This draws the attention of some language researchers to the influence of language socialisation inside and outside the classroom and how

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this could assist learners’ cognitive, academic and social development [30].

IV. PILOT INTERVIEW

An interview was conducted with a Saudi participant who was studying at the EAP (The English for Academic Purposes Language Centre), where students were studying English as a second language. The aim of this pilot interview was to refine the use of mixed methods and to test the interview questions and get feedback from the participant that could help in refining the main interview questions [31]. This interview also gave the researcher an opportunity to present himself to the learner in the chosen setting and explain the aims and desired objectives of the research [32]. The interviewee was a Saudi student who had studied English in Australia for one year and was at an advanced level. The participant stated that he used some technology mediated resources to develop his language skills. This emerged as a major finding from the pilot interview and the researcher looked into how these technologies contributed into the social experiences of other Saudi students in the ESL context.

V. PARTICIPANTS

The researcher has chosen purposeful sampling for selecting the participants of this study. This sampling technique is to look for participants with specific characteristics [33]. It enabled the researcher to obtain rich data and insights on the phenomenon of this group of students and their impression of events in the Australian study context [34]. The study succeeded in recruiting 18 students (10 males and 8 females) Saudi students who took part in the semi-structured interviews. In this research, interview data can assist the researcher in eliciting meanings and perspectives toward the individuals’ experiences and how these experiences can be categorized according to their importance or impact [33]. The interviews were conducted in Arabic the students mother language and then translated from Arabic into English and the main then the main themes were analysed.

VI. RESULTS

From the interviews of participants in this study, interviewees highlighted the role of social media networks and mobile learning in providing opportunities for interactions for language learning. Access to such media assisted in compensating for the need to interact with native speakers. Interviewee #13 commented on the presence of websites designed for tutoring purposes.

The presence of the websites that provide online tutoring in English is a proof of the difficulty of having interaction and direct contact with native speakers in Australia. If there were enough chances to meet the native speakers, I think students would not use these websites frequently.

YouTube was a main source of language learning for the Saudi students in this study. The use of YouTube was valuable in language learning as it provided unlimited resources of authentic texts addressing cultural and social aspects of language [35]. The participants agreed that there were plentiful videos they could utilise:

Interviewee #5 said:

….. I watch many videos on YouTube.

Another participant added,

There are thousands but even millions of videos on YouTube.

Although interviewee #17 was familiar with using YouTube for learning English in Saudi Arabia, she also found it a vital and rich source of information for her learning.

Now at the EAP, I am not using to listen the TEDs on YouTube as an independent resource for language learning. I tried it and I liked it especially in my free time. I also like the idea of listening to improve my language, even though I used to use the YouTube in Saudi Arabia to find look for anything I do not know about English, so it is not new; the new thing is TEDs. It is beneficial especially there is a script that you can read and check what hear is correct.

Another participant stated he liked to use YouTube for improving his writing, which was the area he experienced most difficulty. Sometimes, the motivation for using YouTube had a specific purpose, as he said:

Since the start of the recent attack against Saudi Arabia, some people advised me to speak in English and show the world who we are and what our culture is since we represent the Saudi people. Yes, there are students who learn language through writing comments on YouTube videos as people continue replying to each other. Saudi students usually learn by writing these comments. When they start commenting during an argument or a discussion, other
people start checking my language and spelling mistakes, making fun of them, saying "go and correct your mistakes first before commenting" (interviewee #1).

Interviewee #10, had a different perspective towards using mobile language learning techniques. He liked to listen to broadcasts downloaded on his phone. He played an example broadcast during the interview and he demonstrated the clarity and ease with which he could understand the speech.

It is good in improving my listening and it is very clear. The speakers use academic words (the broadcast is played during the interview), and it lasts for 30 of 40 minutes. Is it free? Yes, it is free and there are around 50 or 60 broadcasts like these and they are good for language learning. However, some programs such as, Prospect (English Online Tutoring) are good for you at the early stages of your learning. Because when I joined Prospect at the being and I had a long contract with them, I find out that it is the same questions they always ask. When call the tutor, he will ask you: where are you from? You will answer I am from Saudi Arabia and I am currently living in Australia. They would say that your language is good and they will give you a compliment. So, from my opinion, you can't rely on the relationship as a friend and talk about different topics, you can’t.

WhatsApp messenger was one of the technological domains used by Saudi participants in this study. Reference 36,3 found that on the individual level WhatsApp is a valuable source for his learners as it helped them to share knowledge, exchange experiences and ideas, discuss various academic and social issues and seek help and support during learning activities. Some of the general features of this messenger are: instant messaging that facilitates online collaboration and cooperation between students whether they are in class or outside, it is free and easy to use, sharing learning material can be done conveniently through comments, texting and messaging.

In the current study, interviewee #9 emphasised the role of the WhatsApp groups created by the teachers, so they could interact with their friends,

They discuss some parts of course materials and what we covered in the class and even the Saudi students in the group interact in English. It is a good way to interact in English with our friends.

Also, the same interviewee went on,

The best thing in using WhatsApp groups with my friends is to check the spelling of my writing and I am using the correct word.

It has been found that mobile instant messaging, such as WhatsApp, can assist in developing the writing skills of ESL students [37]. It is an educational tool that has a great potential for language learners for interaction and to reflect on their writing. However, a number of respondents mentioned there was a lack of benefit in using the WhatsApp application in their classroom experience as not all students took the advantage of chatting in English.

We had a group for our class and I entered it but it didn't benefit me a lot because all students are Chinese and they chat in Chinese language. We notified them many times speak in English but they didn’t respond. But, when I was at another college, the teacher created a group for the class, and all students were speaking in English regardless of their nationalities whether Saudi or Chinese (interviewee #15).

DISCUSSION

The digital technologies contributed to the social experiences of Saudi students in their ESL context. The participants in this study stated that they used some of the technology mediated resources to develop their language skills. They have shown their willingness to use the technological tools at their disposal to socialise within their ESL context. The use of technology is applied and supported by the lecturers of these learners inside and outside the classrooms. This confirms findings of other studies looked at Saudi students in their ESL contexts [38], [39]. Research has found that the use of technology mediated tools as strategies for socialising among the international students can help shape the experiences of the international students in ESL contexts (e.g. [20], [22]). In the current study, findings have shown that the Saudi students are inclined to use these technological tools in their language learning. They aim to gain help with self-regulation and social adjustment in their ESL context. A main aim of applying technological tools in this context is to combine the information from the formal classroom with other information from the YouTube videos to develop their English language skills. The main themes emerging from this study are divided into the following categories:

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• Technology environments as a social strategy.
• Technology environments and language skills development.
• Technology environments and intercultural communication.

Technology environments as a social strategy

The development of learner autonomy is a key aspect in an online environment, e.g., SNSS, in second language learning [14], [15]. Learner autonomy is postulated by three principles: first the learner empowerment and this requires “learners to assume responsibility for their own learning and giving them control of the learning process” (p. 22). This means that the learners have control of their learning and building on what they already know about the language they are learning. In the current study, the Saudi learners were using their previous experiences in English learning to enable them to improve their language skills. The students reflected on their experiences of English language in their EFL Saudi context and understood their need for essential skills, such as writing. From this perspective, it empowered them to source the best strategies to develop and extend their learning such as SNSS.

The second principle is linked with the learners’ reflection which is to help learners think of their learning at a macro level and micro level [40]. From their interviews in this study, these learners were able to discuss the levels of their use of the SNSS in this ESL context. At the macro level, the feedback received from their online tutors was found by one of the interviewees to be effective for him. He emphasised that this aspect was not found, or available, in the formal classroom. In terms of the micro level, the learners were able to evaluate and review their experiences through the use of SNSS and understand what worked for them. According to some of the participants the technological tools were beneficial and instrumental for them to further develop their language skills and at the same time increase their interaction with native English speakers. However, for one participant, the use of SNSS assisted him only at the preparatory level.

The third principle is the appropriate target language use. This principle requires a facilitator, such as a teacher or native speaker to ensure that the learners are able to use the acquired knowledge for communicative purposes. The current study found that constant use of Emails to communicate with their teachers and the collaborative online tutoring discussions with native speakers helped these students to extend their learning and acquire knowledge. These principles align with the social-cultural perspectives of language learning, where the learners exercise some form of responsibility in their learning and is a sign of their psychological development resultinge from the interactive mediated experiences through SNSS [14], [40].

Technology environments and language skills development

The potential of learning and teaching a foreign or second language in the online environments is well established by many researchers [8]. There are rich resources that learners can use to enhance their language skills. In an age of information these online tools have challenged the traditional perspectives of language learning and teaching [41]. Instead of the rule-governed and static methods of language teaching more dynamic, fluid and social practices can be interwoven into the individuals’ daily practices [42]. They allow teachers to combine formal classroom materials with informal knowledge in order to develop the language skills of the learners. For learners, the opportunities for language learning are various and they can be tailored by teachers to meet specific needs of individual students. For example, they provide learners with opportunities to practice their oral skills through live videos (e.g. Skype), where they can practice their English, engage in live conversations with native speakers and can interact with them [43]. The advantage of these interactions is that they support the learners’ confidence in their language skills [8]. The participants in this study stressed their use of online environments to develop their oral skills.

In addition, the use of the online environment can be utilised to improve the writing skills of ESL learners [35], [13], [44]. Writing skills present significant challenges for ESL international learners [7], [45] and there are online environments specifically designed to support written language learning. For example, YouTube offers language learners an opportunity to practice their writing by replying to posted videos and commenting on the contents. The use of these SNSS can develop pragmatic skills among ESL learners [42]. For example, to engage in conversation with native speakers of English they need greeting words to open the conversation. Researcher [46] found that Japanese learners developed their pragmatic knowledge after studying outside Japan and using online blogs, they improved their pragmatic knowledge of the English language. There were noted improvements in their use of address terms, gendered particles in a sentence and shifts between the regional dialects. Similarly, this study found the use of Email

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between the Saudi students and their lecturers was important. The practice of emailing entails pragmatic usage required in writing a message through correspondence, such as greetings, salutations and closing valediction.

On the other hand, the use of the mobile in language learning was highlighted as an important tool for language learning in this study. There are studies done with Saudi students that have shown the Saudi students have positive attitudes toward smartphones and they are confident in using their applications in language learning [36], [47], [48]. The mobile assisted language learning applications used in this study were encouraged as are part of the chat rooms initiated by the teachers and left for the students to communicate as part of their informal learning. Reviewing the perceptions of learners on the affordances of the mobile in their learning, it is asserted that, “students found mobile applications fast, easy to use, portable and accessible anywhere and anytime. Using applications reportedly helped students to more routinely engage with their language by fitting it in around their life worlds” (p. 241) [49].

In this, there are not obligations or structured materials for the students to follow and achieve. Although the SNSS have some degree of informality and openness in their interactions, there is a need to engage in task-based learning, assessments, deadlines and tutoring to have some control over the process of learning [41]. However, the benefits of the use of mobile devices is shown by [50], who found among university students in Hong Kong that mobile technology helped these students to regulate their learning and improve their cultural skills. In addition, the use of mobile applications provides access to learning resources that helps to acquire general and subject knowledge in English language [50]. In the current study it was affirmed that the use of the iPad, online dictionaries, university software management system and mobile applications were highlighted by the Saudi learners. This study found that these tools were instrumental for their language learning and compensated for shortfalls in the class, especially in relation to being able to practice English with native users of the language.

The strength of using online tools for language learners is easy and open access to reach authentic language materials and resources and they can learn at a time that is convenient [19], [43]. The online environments provide learners with plenty of opportunity to interact with their peers, language experts e.g. teacher/ tutor and other students who have a higher level of language proficiency. All these strategies are pragmatic and valuable to promote linguistic and cultural knowledge [35]. The findings of this study add to the previous literature that these strengths influenced the Saudi students to use digital technologies to promote their language learning.

**Technology environments and intercultural communication.**

Language learning entails the learning of some of its cultural meanings as well. In the formal classroom cultural aspects of language are provided to learners through textbooks with inauthentic examples of language [52], [53]. These examples may be simple, straightforward and may be misrepresented by the learners. On the other hand, online interactions help learners to develop their intercultural communication [19]. In this study, the intensive mode of the language learning for the participants helped the learners to be immersed in their learning of English in an ESL context at the language teaching institution. Learners were able to develop cultural understanding and sensitivity toward the English language cultural practices. The presence of a diverse group of students enabled the students to communicate effectively with each other and other users through the use of the SNSS and online tutoring websites. These applications enabled them to communicate with native speakers through video conferencing [43]. The advancement of technological advancement in handheld mobile devices has provided increased social interaction through SNSS application. Other advantages such as the development of cultural knowledge has materialised through writing blogs and shared participation [53].

The influencing factors of different cultural backgrounds of the participants can have an impact on the ways they interact and communicated in the online environments [54]. The students in the current study came from collectivist culture and societies. Consequently, their differing identities and values have resulted in various understanding and formation of friendships across cultures. For example, the Chinese SNSS users tended to be conservative in their approaches to friendships. They preferred not to self-disclose their identities unless the other person is a close intimate friend or a member of their family [54]. As for the Saudi users, they preferred to have double accounts of the SNSS, in which they disclosed their information in the main and formal accounts, while hiding the personal information in the second account [55].

A study [56] found that online discussions assist students to have common interest and point of view toward global cultural issues; the focus group comprised of international students including Saudi students. This facilitated the development of positive attitudes towards other cultures and the respect for
cultural difference. There are differences and benefits in the interaction between the students in the classroom and these differences are also present in the smartphone environment. In the SNSS relationships are often built according to the request and acceptance of users. For the Saudi participants who come from a very conservative and collectivist society it can be hard for them accept adding more friendships on their SNSS platforms. The Saudi students in this study commented on some of the difficulties in terms of understanding cultural norms of peers from other backgrounds inside the formal class. Thus, in the online environment cultural differences are reflected in the differentiated use of technological applications and practices [19]. These factors may further divide the gap between learners from different cultures in terms of establishing effective and close interaction over the mobile applications.

One of the observations of this study was that there were different uses between the Saudi male and female students in their SNSS and smartphone applications that assisted their language development. The male students used various SNSS, e.g. YouTube, WhatsApp, Twitter, online digital dictionaries, online tutoring, broadcasts while the female students used more applications such as YouTube and WhatsApp. The variations in the use of online tools can be traced back to a number of cultural traditions and values that shaped the woman’s use of technology in the Saudi society. Research indicates that the use of SNSS have increased widespread social interactions among Saudi women within the society and has also built confidence [57]. But, Integral to Saudi society is that the use of online platforms for female Saudi women are guided and restricted within cultural traditions [58]. These traditions could be one of the reasons of the limited use of the digital resources by the Saudi female students in this study.

The use of SNSS assisted the Saudi women who are learning ESL to form new friendships and to keep in touch with close friends in Saudi Arabia and others friends in the ESL context [39]. Online contact was found to assist them in their social adjustment to the new environment. However, constraints include posting photos which are restricted to family members or close friends. Also Saudi female participants, especially the married students, the level of comfort using the online discussions in ESL classes was higher compared with face to face discussions [59]. The Saudi female students who are studying in ESL contexts tend to be familiar with male acquaintances from their classes and they have no issues adding these males to their SNSS list of friends [60]. The female participants in this study did not express any kind of dissatisfaction when they talked about their experiences with the other international students.

Their awareness is greater in this area and they tend not to disclose their personal information except for significant others family member or close friends [55]. However, in the current study, the female Saudi students did not show any dissatisfaction in terms of having male friends in their WhatsApp chat rooms that were created by their teachers.

Individual differences can be found in digital language learning where characteristics of the user determine the degree of use of the technological environments and applications in their language learning [61, 62, 63]. Individual differences such as learning styles can shape how each learner approaches their learning. Some argued that teachers can attune their instruction to a preferred style of learning for an individual within the group [64]. However, in the online environment, the accommodation of these individual characteristics is not possible, especially with websites.

In summary this study found that all participants used digital technology to assist in their language learning. Usage varied and this depended on issues of current knowledge, individual preferences, learning styles, gender and family circumstance. In general, with the advancement of mobile devices and their potential for catering to different learners there is a shift towards greater student choice and access to a wider range of materials so learners will have more autonomy to accommodate to their own needs by adopting a range of these applications [42].

REFERENCES


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