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The Attitudes and Perceptions of Saudi EFL Learners Toward Using English Language Learning Mobile Apps for Learning English

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***Abstract*—This study investigated the views of Saudi EFL students toward using English Language Learning Mobile Apps (MELLA) to learn English. A quantitative approach consisting of questionnaires was used to collect data from eighty-nine participants who shared their attitudes and perceptions about MELLAs. Questionnaire items were rated on a Likert scale which ranged from "Strongly Disagree" (1, very low) to "Strongly Agree" (5, very high). Mean Likert scale scores were used to evaluate participants' responses. The study found that Saudis' perceptions of MELLA exceeded their attitudes. Moreover, gender differences were found in Saudis' attitudes toward the use of MELLA. The highest-ranking female attitude mean scores were observed on items related to pronunciation, dictionary, and listening apps while the highest-ranking male attitude mean scores were related to dictionary, listening, and vocabulary apps. Furthermore, the Saudis' mean score for MELLA perception was higher than the mean score for MELLA attitude. Results also show that females have a higher perception than males. Finally, minor gender differences regarding MELLA perception were also found; the highest female mean scores were based on easiness and flexibility in the use of apps while males highly perceived the convenience of using an app anywhere and at any time as being most important to them.**

***Index Terms*—mobile, perception, attitude, Saudi males, Saudi females**

I. Introduction

These days, traditional technological devices such as desktop computers have been replaced with new and innovative digital devices such as mobile phones. As a result, the most up-to-date educational systems, including schools and universities, employ the use of mobile devices in learning (Aldowah et al., 2019). Al-Zahrani (2015) argues that mobile learning positively affects both educators and learners. Due to their unlimited availability and benefits, mobile devices allow educational institutions to be more creative in their teaching processes (Alsswey et al., 2020; Alblowi, 2019; Aldowah et al., 2019; Almaiah & Alismaiel, 2018). Thus, technology is now an essential component of any modern educational system where it is used to provide learners with vast opportunities to access and acquire knowledge.

Language learners primarily tend to use mobile technology outside of the classroom or curriculum setting to enhance their language competencies in a foreign language. Nowadays, language learners utilize mobile apps such as YouTube, Facebook, Duolingo, and so on in their personal learning environments. Moreover, mobile technology has also become widely used in language learning (Hsu & Lin, 2021) as it provides learners with unlimited access to multiple language learning resources and the opportunity to engage and collaborate with native speakers at their convenience (Taj et al., 2016; Kukulska-Hulme & Viberg, 2018). Consequently, learners using mobile-assisted language learning (MALL) routinely improve their fluency in a spoken language.

The first two decades of the 21st century witnessed 3.2 billion active internet users and 2 billion mobile phone users (Taj et al., 2016). In a study on the use of cell phones for teaching English, Klimova (2018) found that more than 90% of the population in developed countries had at least one phone, and 92% of cell phone users were between 18 to 29 years old. Furthermore, the advantages of mobile phones in learning exceed that of any other portable device due to their accessibility, mobility, variety and number of apps used for learning, especially language learning apps.

Recently, an unlimited number of mobile apps have been created for language learning. Learners prefer language learning apps to traditional ways of learning and teaching language as language learning apps conveniently grant access to language learning materials (Cheng & Kim, 2019). The present study investigated Saudis' perceptions and attitudes in using mobile language learning apps while considering their gender differences.

II. Literature Review

There is no consensus on the definition of mobile-assisted language learning (MALL) (Yükselir, 2017); however, MALL is "often regarded to be a subfield of m-learning, a process of language learning utilizing mobile devices" (Van, 2022, p. 153). Hence, MALL facilitates learning and information access via mobile devices. Although many scholars consider the terms MALL and computer-assisted language learning (CALL) interchangeable, MALL is portable with

multifunctional and personalizable services that can be accessed at any time and from anywhere when compared to PCs or other technological devices.

Recently, MALL apps have attracted the increasing attention of language learning researchers (Annamalai, 2019; Annamalai & Kumar, 2020; Moroz, 2013; Annamalai et al., 2022). Earlier studies posited smartphone apps as potential learning resources (Kim & Kwon, 2012; Vazquez-Cano, 2014; Gangaiamaran & Pasupathi, 2017). Kim and Kwon (2012) demonstrated the effectiveness of mobile English language learning apps (MELLA) in facilitating self-centered learning and flexible access to resources. Steel (2012) found that 56% of language learning students reported that their use of apps was supportive of their learning while 23% ranked their use of apps highest among language learning resources. Wu (2015) demonstrated that apps granted learners opportunities to learn English vocabulary.

Furthermore, MALL provides users with contextual opportunities, free time, and place-dependent language learning experiences (Metruk, 2021; Mortazavi et al., 2021). Gangaiamaran and Pasupathi (2017) documented the existence of numerous learning apps for EFL learners to learn and practice language skills including reading, listening, speaking, and writing) and established that smartphone apps helped learners acquire better listening skills than any other technological device. Still, Abdullah et al. (2019) illustrated that, despite mobile apps displaying the potential to improve language learning, their use requires guidance.

When it comes to the question of teachers, Aljaoud et al. (2019) found that using smartphone apps promotes both student-student and student-teacher interaction. Similarly, Annamalai and Kumar (2020) revealed that using smartphones to complete English coursework created opportunities for distance education students to interact, collaborate, listen, obtain feedback, and review their work. Moreover, Mindog (2016) found that Japanese university students believed that using mobile apps in EFL learning enhanced their listening, speaking, reading, and writing English language skills. Likewise, Ishaq (2018) showed that Indian university students were in favor of using the electronic dictionary on their phones to develop their vocabulary. Kanchana and Saha (2015) demonstrated a similar outcome among Indian students using mobile apps to learn language skills.

A learner's motivation is essential in L2 learning, and researchers have investigated the relationship between motivation and using MALL by language learners (Teodorescu, 2015; Balula et al., 2015). Kim and Lee (2016) demonstrated that Korean students found using MALL enjoyable, user-friendly, and reliable; thus, it positively impacts Korean students' acceptability of using MALL. Likewise, Klímová (2018) showed that smartphones had a positive impact on EFL learners' English terminology and language learning motivation.

Ekinci and Ekinci (2017) concluded that using apps helped Turkish university students acquire English vocabulary and develop their reading and writing skills. In addition, students found using mobile apps enjoyable and they were highly motivated to use them to learn vocabulary. Kacetl and Klímová (2019) showed that using mobile apps developed foreign language learners' cognitive capacities and enhanced their motivation for learning, confidence, and autonomy in self-learning.

Mobile technology has influenced every aspect of modern Saudi lives, particularly in Saudi higher educational institutions where mobile technology has strengthened the use of mobile apps in learning (Alharbi et al., 2017). Alsswey et al. (2020) highlighted the usefulness of mobile learning in Arab universities and educational systems. Muhammed (2014) established that Iraq Sulaimani EFL students regarded the use of different smartphone apps related to language learning as useful resources for language learning. Moreover, junior Lebanese applied science learners found using mobile learning acceptable and very effective (Kadry & Ghazal, 2019). Salameh et al. (2020) presented evidence that Palestinian students at the Arab American University were familiar with the use of mobile learning applications.

Seliaman and Al-Turk (2012) found that Saudi college students used mobile technology to access lectures and learning materials on foreign language learning. Teachers in Saudi Arabia are encouraged to adequately utilize devices such as smartphones to teach EFL students (Alamer, 2016). In addition, Al-Fahad (2009) documented an official endeavor to promote mobile learning through distance learning. However, Taif University faculty members had limited technological knowledge in the use of virtual learning (Rhamatullah et al., 2020) despite the wide use of mobile apps such as video streaming in Saudi learning institutions. Abugohar et al. (2019) documented Saudi teachers' positive perceptions of using smartphone apps in speaking classes.

Conversely, Heil et al. (2016) found three main trends in 50 commercial language learning apps. Vocabulary was taught isolated from text, apps rarely adapted to learners' skill sets, and learners rarely received corrective feedback. Still, several studies indicate positive perceptions towards using smartphones in language learning (Alamer, 2016; Kadry & Ghazal, 2019; Abugohar et al., 2019; Rhamatullah et al., 2020).

Gender differences have been observed in accepting technology in the language learning process (Kim & Yoo, 2017). A study conducted by Huang et al. (2013) found that male participants displayed higher competencies and less anxiety in using technology than female participants. Baker et al. (2012) revealed that male learners' acceptance rates of using cell phones in classrooms exceeded those of female learners. Another study by Liu and Guo (2017) that examined gender differences in the acceptance of using mobile devices in learning found that male Asian college students displayed more positive perceptions of the use of mobile devices as they found it to be a useful and beneficial tool for society. Females, however, preferred to use mobile devices for social interaction as social utilities.

On the other hand, some research studies did not reflect major gender differences in perceiving or using mobile learning apps (Serin, 2012; Yaman et al., 2015; Uzunboylu & Ozdamli, 2011; Fouh et al., 2014; MacCallum, Jeffrey, & Kinshuk, 2014; Nami, 2020). Serin et al. (2012) studied Turkish EFL pre-service teachers' perspectives on using smartphones in language learning classes and found no significant gender differences in the opinions of EFL teachers. A Turkish study conducted by Yaman et al. (2015) on 120 English language students' use of smartphones for language learning revealed that both males and females use smartphones for language learning to a similar degree.

Uzunboylu and Ozdamli (2011) found no gender differences in teachers' points of view towards utilizing mobiles in language learning classes. Nami (2020) also found that gender had no impact on 380 Mirkabir University of Technology college students enrolled in general English classes and their perceptions toward the use of smartphones for language learning. Studies conducted by both Fouh et al. (2014) and MacCallum, Jeffrey, and Kinshuk (2014) did not find gender differences concerning general perceptions toward utilizing smartphones in general education programs.

Research studies that have examined gender differences in the perceptions or use of smartphones in education or English language learning yielded conflicting information. Hence, further investigation is highly recommended to illustrate the impact of gender differences on using MELLA, especially in the Saudi education context which has a gender-segregated education system. The primary aim of this study was to explore Saudi perceptions and attitudes toward using English language learning apps on their smartphones while considering their gender differences.

III. Methodology

A questionnaire was used to assess Saudis' attitudes toward using mobile apps in learning the English language in alignment with the study purpose. The questionnaire items were set to answer the following research questions:

1. What is the common English language learning skill that Saudis frequently use to develop through their smartphone apps?
2. What are Saudi EFL learners' attitudes toward using smartphone English learning apps to learn or practice English?
3. What are the Saudi EFL learners' perceptions regarding smartphone English language learning apps?
4. Do Saudis' perceptions or attitudes toward using smartphone English learning apps vary by gender?

A. Research Instrument

The study questionnaire items were adopted from Swamy (2007) and Metruk (2021). Swamy (2007) developed a questionnaire to assess users' attitudes and perceptions towards using smartphones in language learning while Metruk (2021) further developed this questionnaire to include items that concentrated on language development. The present study made some minor modifications to the questionnaire to suit the Saudi environment; for instance, the list of smartphones was revised so that it listed only those that were available in Saudi Arabia.

There were a total of 32 study questionnaire items; the first three items asked about background information (age, gender, education), followed by two items eliciting the type of smartphone used by the participant, and the number of English learning apps installed on his or her smartphone. Subsequently, ten attitude items examined participants' attitudes toward using smartphone apps in learning English while another 17 items assessed participants' perceptions toward using these apps. Participants were asked to rank their use of their smartphone apps in learning English on a five-point Likert scale ranging from Strongly Agree (score 5) to Strongly Disagree (score 1). The reliability of the study instrument was measured using Cronbach's Alpha formula. The instrument's internal consistency was 0.95 which implied that the study questionnaire was reliable.

B. Data Collection

Social media is one of the most recent and commonly used approaches to collect study data due to its accessibility and convenience. Hence, a link to a survey prepared on Survey Monkey was sent to study participants through WhatsApp, Facebook, and Twitter over three to four weeks.

C. Data Analysis

Mean scores were used to evaluate participants' attitudes and perceptions about their use of MELLA. A mean score of 1.00 to 1.80 represented "Strongly Disagree" (Very Low) while 1.81 to 2.60 referred to "Disagree" (Low). Furthermore, 2.61 to 3.40 represented "Undecided or Neutral Level of Agreement" (Moderate), 3.41 to 4.19 referred to "Agree" (High), and 4.20 to 5.00 points referred to "Strongly Agree" (Very High).

IV. Study Results

A. Gender Distribution of EFL Learners

A total of 89 Saudi EFL students enrolled in BA and MA degree courses in Saudi universities reported their use of smartphones for language learning. There were fifty male and thirty-nine female participants as shown in Table 1. Most participants were aged 18 to 24 years old (college students) and 25 to 30 years old (graduate students).

TABLE 1
GENDER DISTRIBUTION OF SAUDI EFL COLLEGE STUDENTS WHO REPORTED THEIR PERSPECTIVES ON USING SMART PHONE APPS IN LEARNING THE ENGLISH LANGUAGE

Study Participants		
Gender	Percentage	Number
Males	56.18%	50
Female	43.82%	39
Total	100.00%	89

B. Education Level of Saudi EFL Learners

Study participants were EFL students who had to use English for academic purposes; that is, either for science classes such as biology, chemistry, computer science, and so on, as well as English majors. A large portion of the study participants were college sophomores, juniors and graduate students from different Saudi colleges (See Figure 1).

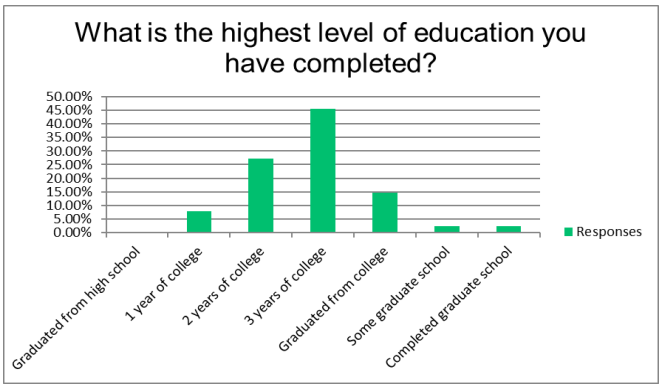


Figure 1. Education Level of Saudi EFL College Students Who Reported Their Perspectives on Using Smart Phone Apps in Learning the English Language

C. Types of Smart Phone Devices Used by Saudi EFL Learners

The most common smartphone devices used by Saudi college students were Apple (88.76%) and Galaxy (7.87%). Less than 4% of participants used other smartphone devices such as Huawei or LG.

D. Number of English Language Learning Apps Installed on Smartphones by Saudi EFL Learners

The study results indicated that 38.20% of Saudi EFL students had installed at least one English learning app on their smartphones, while 25.84% had two apps, 23.60% had three apps and 7.87% had five apps installed on their smartphones. Most students had more than one MELLA on their phones reflecting the popularity of using apps in language learning. Fewer participants had four or more apps installed on their phones (See Figure 2).

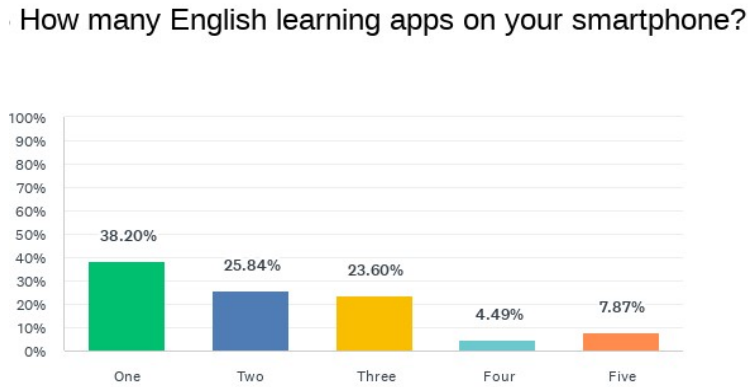
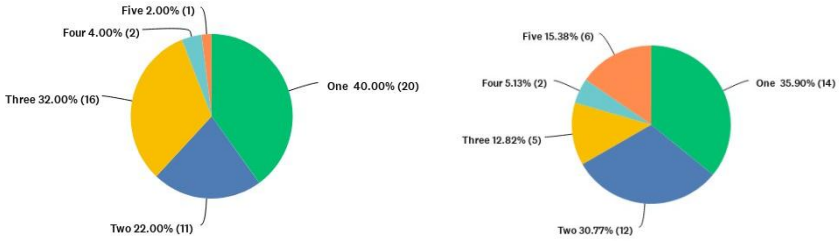


Figure 2. Number of English Learning Apps on Saudi EFL College Students Smartphones



Number of MELLA Installed on Saudi Males Number of MELLA Installed on Saudi Females

Figure 3. Number of Mobile English Language Learning Apps (MELLA) Installed on Saudi Male and Female EFL College Students' Smartphones

A. Number of English Language Learning Apps Installed on Smartphones by Saudi EFL Learners by Gender

Most male and female students had one MELLA installed on their phones. More males than females had three MELLAs installed on their smartphones (32.5%) while fewer males than females had two MELLAs installed on their smartphones (22.00%). In contrast, more females than males had two MELLAs installed on their phones (30.77%) while fewer females than males had more than three MELLAs installed on their phones (12.62%). Very few students of either gender had four MELLAs on their phones. More female students (15.38%) had five MELLA installed on their phones when compared to males (4.00%). The majority of both male and female students with MELLA on their smartphones reflect a wide interest in using technology in learning English (See Figure 3).

The most commonly practiced skills by Saudis on their mobile phones were using MELLAs for dictionary apps, pronunciation, and listening. More Saudi females than males use language learning apps at home to practice reading, pronunciation, and writing. On the other hand, more males than females use apps to practice vocabulary, speaking, and grammar. Nevertheless, both males and females used the dictionary apps on their mobile phones equally.

B. Saudi Females' Attitudes Towards the Use of MELLA

Most Saudi females used MELLA to practice pronunciation (4.08= 1.00) and access an English dictionary (3.97 = 0.89) with scores related to accessing the English dictionary having the lowest SD. This indicates that the data points were close to the mean.

Females used MELLA equally at home and to practice listening (mean attitude score of 3.74). However, the use of smartphones to practice listening had the highest standard deviation (SD= 1.35) meaning participants' attitudes regarding this item were spread out. In addition, Saudi females displayed a high attitude score (3.67) in their use of MELLA in their commute or travel implying the wide acceptability of smartphone apps in practicing English.

Saudi females frequently used vocabulary-learning smartphone apps (3.51) and apps to practice reading (3.49). Likewise, females displayed similar practicing reading and speaking high mean attitude scores (3.44). However, they expressed neutral attitude scores in their use of MELLA at school (3.26) and in practicing grammar (3.15) (See Table 2).

C. Saudi Males' Attitudes Toward the Use of MELLA

Saudi males frequently used MELLA to access a dictionary (4.06) and to develop their listening skills (3.90), pronunciation (3.84) and vocabulary (3.78). The use of MELLA to develop English vocabulary had the lowest standard deviation (SD=70) implying participants' scores were more concentrated closer to the mean. Saudi males also displayed very high or high mean scores for the use of MELLA to practice English at home (3.68), practice reading (3.54) and practice speaking (3.50).

Saudi males had neutral attitudes toward the use of MELLA for grammar practice (3.36). Commuting or traveling came next with a 3.26 mean score, and the lowest mean scores were for practicing writing (3.02) and practicing English at school (2.96). The study data indicated that practicing writing had the highest standard deviation point (SD= 1.27) meaning that the participants' answers were less concentrated around the mean (See Table 2).

D. Comparing Saudis' Attitudes Toward the Use of MELLA by Gender

According to Table 2, whether by male or female, all Saudi responses generally had either moderate or high mean scores on their attitudes towards MELLA with no very high, low, or very low mean scores recorded. Females had a high mean score on "Using MELLA while traveling or commuting" while males had a moderate score. There were no other gender differences in participants' attitudes toward the use of MELLA.

TABLE 2
SAUDI EFL COLLEGE STUDENTS' ATTITUDES TOWARDS MELLA

Item No.	Statement	Females Mean (SD)	Males Mean (SD)
1	I use English language learning apps installed on my smartphone to practice vocabulary.	3.51 (1.22)	3.78 (0.70)
2	I use English language learning apps on my smartphone to practice English when I am at home.	3.74 (1.10)	3.68 (0.79)
3	I use English dictionary apps on my smartphone on a regular basis.	3.97 (0.89)	4.06 (0.86)
4	I use English language learning apps installed on my smartphone for practicing Grammar.	3.18 (1.26)	3.36 (1.13)
5	I use English language learning apps installed on my smartphone for practicing reading.	3.49 (1.20)	3.54 (1.19)
6	I use English language learning apps on my smartphone to practice English while commuting/travelling to school or work.	3.67 (1.07)	3.26 (1.16)
7	I use English language learning apps installed on my smartphone for practicing pronunciation.	4.08 (1.00)	3.84 (1.05)
8	I use English language learning apps installed on my smartphone to practice my writing skills.	3.15 (1.23)	3.02 (1.27)
9	I use English language learning apps installed on my smartphone for practicing Listening.	3.74 (1.35)	3.90 (1.0 6)
10	I use English language learning apps installed on my smartphone for practicing speaking.	3.44 (1.30)	3.50 (1.19)
11	I use English language learning apps installed on my smartphone for practicing English when I'm at school.	3.26 (1.23)	2.96 (1.18)

E. Saudi Females' Perceptions Toward MELLA

Overall, Saudi females' perceptions toward MELLA were very high or high with an average recorded score of 4.05, a high mean score of 4.31, and a low mean score of 3.67 reflecting an increased awareness about the use of MELLA in English learning by Saudi females (Table 3).

The highest recorded mean score regarding females' perception of MELLA concerned practicing English by using English learning apps because they are easy and flexible (4.31). Interestingly, three survey items - effectiveness, enjoyment, and convenience of practicing English by using apps - had the same mean score (4.18). However, Saudi females ranked "English learning apps on my smartphone help me develop and enhance my writing skills" lowest (3.67).

The highest recorded standard deviation regarding females' perception of MELLA was found in participants' preference to use English language learning apps to practice English over traditional English language learning methods (3.82 =1.22) implying that participants' answers were less concentrated around the mean even while having such a high mean score. Likewise, the second highest standard deviation with similar high mean scores was recorded on the importance of using English language learning apps in a participant's English language learning process (4.08 =1.19).

TABLE 3
SAUDI EFL COLLEGE STUDENTS' PERCEPTIONS TOWARD MELLA

Item No.	Statement	Females Mean (SD)	Males Mean (SD)
12	English language learning apps on my smartphone help me develop and enhance my lexical system (vocabulary).	4.10 (0.80)	4.16 (0.73)
13	English language learning apps on my smartphone allow me to practice my English anywhere and anytime.	4.28 (0.78)	4.44 (0.67)
14	Practicing English by using English language learning apps is easy and flexible.	4.31 (0.79)	4.34 (0.62)
15	Practicing English by using English language learning apps is convenient.	4.18 (0.93)	4.04 (0.72)
16	Practicing English by using English language learning apps is effective.	4.18 (0.98)	4.06 (0.88)
17	Practicing English by using English language learning apps is enjoyable.	4.18 (0.90)	4.04 (0.88)
18	Practicing English by using English language learning apps motivates me to study English.	3.90 (1.01)	3.80 (0.96)
19	Practicing English by using English language learning apps makes me autonomous.	3.72 (0.88)	3.31 (0.86)
20	Practicing English by using English language learning apps makes me more creative.	3.87 (1.11)	3.59 (0.95)
21	Practicing English by using English language learning apps makes me more confident.	4.08 (1.02)	3.78 (1.04)
22	Practicing English by using English language learning apps is an important part of my language learning process.	4.08 (1.19)	3.74 (0.80)
23	English learning apps on my smartphone help me develop and enhance my grammatical system and reading skills.	3.85 (1.10)	3.90 (0.57)
24	English learning apps help me find solutions on my own.	4.05 (1.01)	4.02 (0.81)
25	English learning apps on my smartphone help me develop and enhance my phonological system and speaking skills.	3.95 (0.93)	3.62 (0.85)
26	English learning apps on my smartphone help me develop and enhance my writing skills.	3.67 (1.14)	3.40 (0.98)
27	English learning apps on my smartphone help me develop and enhance my listening skills.	4.08 (1.02)	4.06 (0.88)
28	I prefer using English language learning apps to traditional English language learning methods to practice English.	3.82 (1.22)	3.42 (1.10)

F. Saudi Males' Perceptions About MELLA

The mean scores of Saudi males' perceptions ranged from 3.31 (moderate level) to 4.44 (high level), reflecting a higher variation in their responses when compared to females. The highest mean scores were observed with "Using MELLA in my smartphone allows me to practice my English anywhere and anytime" (4.44) followed by "Practicing English by using English language learning apps is easy and flexible" (4.34).

Males preferred using English language learning apps to practice English over traditional English language learning methods (3.42=1.10) which also had the highest standard deviation point indicating that participants' answers were less concentrated around the mean. The second highest standard deviation was observed with the survey item "Practicing English by using English language learning apps makes me more confident" (SD= 1.04). There were no low or very low mean scores for males' perceptions toward MELLA.

However, there were some moderate mean scores regarding males' perceptions about the use of MELLA. The lowest moderate mean score was observed with "Practicing English by using English language learning apps makes me autonomous" (3.31), "English learning apps in my smartphone help me develop and enhance my writing skills" (3.40), and "Preferring to use English language learning apps for practicing English in comparison to traditional English language learning method" (3.42).

G. Comparing Saudis' Perceptions About MELLA by Gender

Both gender responses displayed higher mean scores concerning MELLA perception when compared to MELLA attitudes, especially for females. Males recorded only one moderate score on the perception item regarding participants' autonomy in their use of MELLA. Moreover, researchers encountered very high mean scores concerning the perceptions toward both males and females' MELLA on the study item that discusses "Apps on my smartphone allow me to practice my English anywhere and anytime" as opposed to that observed with MELLA attitudes.

V. Discussion

The iPhone was the most commonly used device by Saudi EFL college students with half of them having more than one MELLA app installed on their mobile phones proving the practicality and usefulness of MELLA apps for Saudi EFL learners as established by previous studies (Steel, 2012; Seliaman & Al-Turk, 2012). Therefore, the present study's findings concur with those of Gangaiamaran and Pasupathi (2017) and Abdullah, Tajuddin, and Soon (2019) which indicated that MALL or ELLA effectively contributed to developing EFL language skills.

Some studies found that MELLA was effective in developing vocabulary and learning or listening skills (Steel, 2012; Seliaman & Al-Turk, 2012; Wu, 2015; Gangaiamaran & Pasupathi, 2017; Abdullah, Tajuddin, & Soon, 2019); however, this study not only concurred with previous findings but also went further to illustrate MELLA's effectiveness in developing all language skills, specifically listening, speaking, dictionaries and vocabulary learning.

Mindog (2016) explained that Japanese students liked using MALL to learn the English language; similarly, Ishaq (2018) found that Indian college students favored the use of MALL. Likewise, the present study found that Saudis of either gender had a positive attitude towards the use of MALL in learning English and were also motivated to use MALL or MELLA in the learning process. Therefore, Saudis are equally motivated to use MALL as their Korean and Turkish peers (Kim & Lee, 2016; Ekinci & Ekinci, 2017).

Nevertheless, some studies indicate that MELLA is not always useful for EFL learners because students learn neither text in context nor obtain feedback. They are also limited by the unavailability of technological devices in the Third World (Heil et al., 2016; Rhamatullah et al., 2020). Moreover, several studies have established that MELLA is useful to Arab and Saudi learners (Seliaman & Al-Turk, 2012; Muhammed, 2014; Kadry & Ghazal, 2019; Alsswey et al., 2020; Salameh et al., 2020). The present study agrees with the results of previous studies that portray MELLA as useful for Saudi EFL learners and Saudi EFL learners' positive attitudes and confidence in using the MELLA in learning English.

Lastly, gender differences were found among Saudi participants in their frequent use of MELLA for language learning. Saudi females' use of MELLA for practicing reading, pronunciation, and writing outweighed that of males, while males' use of apps for practicing vocabulary, speaking, and grammar outweighed that of females. However, both males and females used dictionary apps equally on their mobile phones. Some MELLA studies illustrate gender differences in perceptions about MALL or MELLA; (Baker et al., 2012; Huang et al., 2013; Kim & Yoo, 2017; Liu & Guo, 2017): however, other studies disprove these findings (Serin, 2012; Yaman et al., 2015; Uzunboylu & Ozdamli, 2011; Fouh et al., 2014; MacCallum, Jeffrey, & Kinshuk, 2014; Nami, 2020). The present study demonstrated similarities between Saudi males' and females' attitudes toward the use of MELLA with perceptions about MELLA exceeding attitudes toward MELLA especially among Saudi females.

VI. Conclusion

The present study investigated the most common MELLA apps used by Saudis and their attitudes and perceptions towards using MELLA in language learning by gender.

Most Saudis had more than one MELLA app on their mobile phones and females were more likely to have more than three apps on their devices. The most commonly used apps by both genders (males/females) were dictionary apps, pronunciation apps, and listening apps.

Saudi females preferred using pronunciation apps, dictionary apps, and listening apps during commuting/ traveling while males preferred using dictionary apps, and MELLA apps for listening, pronunciation, and developing their vocabulary. On the other hand, females disliked using MELLA to practice grammar while males disliked using apps to practice writing. Consequently, both males and females had positive attitudes toward the use of MELLA especially with dictionary apps, pronunciation apps, and listening apps.

Saudis had high perceptions about using MELLA as evidenced by the number of apps downloaded on their mobile phones with higher perceptions observed among females than males. Females highly perceived using apps as flexible, easy, effective, convenient, and enjoyable and least perceived the use of apps to enhance writing skills. On the other hand, males highly perceived the convenient use of apps anywhere and at any time, and the ease and flexibility of using apps, and least perceived the use of apps to make them autonomous.

Saudi EFL students commonly use language learning mobile apps with gender variations in the number of MELLA downloaded on their mobiles, their attitude toward using MELLA, and their perceptions about using MELLA; moreover, these apps have significantly contributed to enhancing their skills. The study concludes that Saudi's perceptions of MELLA are higher than their MELLA attitudes.

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