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Exploring the Use of Smartphone Applications in Learning Language during the Covid-19 Pandemic at Higher Education

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Abstract

The present study explores the use of smartphone application in learning language during the Covid-19 pandemic. The participants were from Indonesian Language and Literature Study Program, Faculty of Languages and Literature State University of Makassar, Indonesia who attended full online classes in the amidst Covid-19 pandemic. The students were from the second, forth, and sixth semester. The study concludes that the smartphone can enhance the students' language skills. Other evidences are: the smartphone can toil students' writing skill, smartphone can develop the students' language skills, and smartphone can improve students' listening skills.

Introduction

At the end of 2020, the world was jolted by the presence of the Corona virus, better known as Covid-19. This virus later became a worldwide pandemic, and is still endemic throughout the world. With the presence of this pandemic, forcing a person or the government of a country to carry out activities from face to face to online, which is known as work from home (WFH)? Educational institutions, ranging from basic education to tertiary institutions, also design learning through online classes, where the learning process is carried out online. In these online classes, a variety of technological tools are needed to facilitate the online teaching and learning process, namely by using technology. The modern and challenging situation in the globalized world forces people to familiarize themselves with modern technology and integrate it into their personal and professional environment (Karczewska, et al., 2019, p. 135).

Globalization requires individuals to use their full potential, therefore it is important to acquire specific knowledge that is learned in higher education. To keep up with the pace of environmental change, future professionals and students must be well educated in their educational institutions. This is what the education system hopes for: preparing students for their future lives, and because modern technology, social media, publicity have a huge impact on the rapid changes in modern society, IT tools must be implemented into the teaching and learning process. process (Karczewska, et al., 2019, p. 135).

A number of important developments directly related to mobile learning (or m-learning) occurred in 2013 and it is time for teachers and researchers to identify and exploit the educational potential of these developments (Reinders & Pegrum, 2015, p. 221). Apart from having a (potential) impact on people's private lives, the use of smartphones is also considered to be able to interfere with the educational and professional life of individuals. In particular, this has been linked to the academic performance of tertiary students (Amez & Baert, 2020, 2). If a smartphone application is to be used maximally for educational purposes, including language learning, the application content must meet and reflect the course content and student pedagogical needs (Nami, 2020, p. 93). Therefore, educators, application designers and curriculum developers in any discipline, including language learning, must interact to design application content that is aligned with course content and its pedagogical goals to increase the attractiveness of mobile learning tools for students. Moreover, given the fact that different technologies require certain types of literacy, it seems important to provide students with relevant knowledge and skills for the effective use of suitable smartphone applications (Nami, 2020, p. 93). The use of smartphones and the internet has affected people's daily lives, even for children and adolescents (Lekawael, 2017, p. 255).

Review of Literature

A. Mobile Assisted Language Learning (MALL)

There is a rapid increase in the adoption of mobile technology for language teaching and learning. Cellular Assisted Language Learning (MALL) provides easy access for every learner without the constraints of place and time. In Mobile Learning, devices such as smartphones, iPods, tablets, laptops, iPads are implemented into scaffolding language learning (Gangaiamaran & Pasupathi, 2017, p. 11242).
Cellular technology is a portable electronic device used for communication. These devices include cell phones, smartphones, personal digital assistants (PDS), and tablet PCs (Hsu in Poole, 2017, p. 97). Mobile learning, or m-learning, seeks to support technology-enhanced e-learning and education features through the use of wireless devices such as mobile phones or tablets (Yaman, et al., 2015, p. 1). Students today are programmed with the innate ability to build networks using technology. So far, their current 'preferred technology' is cell phones (Lynch, 2016). Beyond its function as a classroom tool, mobile technology is the main channel for the learning experience of many students (Lieberman, 2019).

B. Smartphones

Many educational institutions, especially universities, consider the use of smartphones as part of a learning aid in the classroom because most students (in most cases all students) not only have them but are attached to them (Anshari, et al., 2017, p. 11242)) .
The number of smartphone users worldwide currently exceeds three billion and is expected to increase to several hundred million in the next few years. China, India, and the United States are the countries with the highest number of smartphone users, with each country easily surpassing the 100 million user mark (O'Dea, 2020).
Not every classroom can get a laptop every day, so [a device like a smartphone], even if you have to be a pair, is something that is useful for teachers (Graham, 2020). The advent of smartphones had a dramatic impact on our daily lives and has made humans 'walk with computers' (Yemen, et al., 2015, p. 1). Mobile learning (often "m-learning") itself is not new, but new tools with enhanced capabilities have dramatically increased interest, including among language educators (Godwin-Jones, 2012, p. 2).
In the learning process before the COVID-19 pandemic, the facilities that were widely used were offline, where students immediately took part in lectures, attended lectures, but now students are prohibited from entering campus, and teaching and learning activities are carried out using the online system (Suci, et al., 2020). One of the vital tools is a smartphone. A smartphone is a handheld electronic device that provides a connection to a cellular network that allows people to make phone calls, send text messages, and access the internet (Frankenfield & Estevez, 2020). A smartphone is a mobile phone equipped with additional software functions, such as email or an Internet browser (Merriam - Webster, 2021).
Godwin-Jones (2017, p. 3) argues that touch screen smartphones inspired by Apple are not just technological innovations, but rather devices that have ushered in a new era in human-machine relationships and, as such, are fundamentally (unconsciously) potential interfere with the teaching and learning process, including L1 and L2 literacy and learning. The popularity of mobile devices has rapidly transformed learning, communication, and even our own lifestyles and the use of mobile technology greatly expands learning opportunities, needs, goals, and has a profound effect on many learning activities and learning styles (Kim & Kwon, 2012).
So how can classrooms take advantage of the ubiquitous interest in technology and effectively incorporate smartphones into learning environments? Some Teachers have shown that smartphone functions and applications provide students in the classroom with practical tools to do research, use them as an alternative to electronic readers, share blogs, keep a mobile diary, and even allow them to do so and track student behavior (Lynch, 2016). Lynch therefore reveals that one such teacher, John Hardison, a mixed learning specialist at East Hall High School in Gainesville, Georgia, classifies the way he and his students use smartphones into what he calls the "Five C's." 1. Collaborate, communicate, create and coordinate. He uses a smartphone to:, 2. Collaborate by having students rate peer-to-peer essays via Google Forms embedded in the teacher's page, and allowing them to view constructive criticism in real time, 3. Communicate by asking students to use FaceTime to add students, both in class and other people, even those from other schools, during class discussions or learning activities., 4. Create by writing using applications such as My Writing Spot and Evernote as well as using a dictionary and thesaurus application, and 5. Coordination by asking students to access their peer blogs by sharing the Symbaloo webmix on the teacher's page. He even set an example.
Turning Technologies (2021) argues that many people should integrate mobile phones into classrooms as educational tools. In fact, according to the Pew Research Center, 96% of adults in the United States aged 18 to 29, and 81 percent of all adults, own a smartphone, which means this powerful tool is readily available to most college students.

Methods and Procedures

This current study employed the case study approach to examine the use of smartphone in the outbreak of Covid-19 Pandemic.

A. The Context and the Participants

The participants were from Indonesian Language and Literature Study Program, Faculty of Languages and Literature State University of Makassar, Indonesia who attended full online classes in the amidst Covid-19 pandemic. The students were from the second, forth, and sixth semester.

B. Material and procedure

The instrument employed in the current study was close ended questionnaire which aims to investigate the use of smartphone in the language teaching amidst Covid-19 pandemic by the 26-item Likert-scale of the use of smartphone during the Covid-19 Pandemic at Higher Education. The questionnaire was written in Indonesian and the undergraduate in Indonesian Language and Literature Education Study Program Universitas Negeri Makassar were asked to rate their perception on the use of smartphone as one of vital technology in online learning.In this study, the students were asked to rate the perceptions with response to the questionnaires on a 5-point Likert scale on which 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, and 5 = strongly agree.

C. Data Collection and Data Analysis

The data source was from questionnaire which administered to undergraduate students majoring Indonesian Language and Literature Study Program, State University of Makassar in 2020/2021 academic year. The data were collected on February 2021. Data analysis uses IBM SPSS Statistics 23 to show percentage, table, and graph, followed by interpretation and explanation. This descriptive statistic which presents percentage, mean, SD, etc. is calculated to respond the survey items.

1. Result and Discussion

A. Demographic of Participants

Table 1 below presents the demographic of participants. As revealed in the Table 1 that there are 83 or 87.37% of participants are female and there are 12 or 12.63% of them are male. The Table 1 also shows the age range of participants, the semester, ethnic groups, and the duration of smartphone phone use a day.

Table 1. Demographic of Participants

Demographic Information		Frequency	Percentage
Gender	Female	83	87.37
	Male	12	12.63
Age	18	9	9.47
	19	44	46.31
	20	32	33.68
	21	7	7.37
	22	3	3.16
Semester	2	12	12.63
	4	67	70.53
	6	16	16.84
Ethnic Groups	Buginese	54	56.8
	Makassarese	32	33.68
	Mandarese	5	5.26
	Javanese	2	2.10
	Selayarese	1	1.05
	Florese	1	1.05
Duration of Smartphone Use a Day	Less than 1 hour	0	0
	Between 1 - 2 hours	1	1.05
	Between 2 - 3 hours	0	0
	Between 3 - 4 hours	6	6.31
	Between 4 - 5 hours	11	11.58
	Between 5 - 6 hours	30	31.58
	More than 6 hours	47	49.47

Table 2. Distributions for Participants' Perception on the Use of Smartphone in Language Learning in the amidst Covid-19 Pandemic (N = 95)

Item	Min	Max	Mean	SD	Skewness	Kurtosis
1	2.00	5.00	3.6632	.67808	.324	-.529
2	1.00	4.00	2.3895	.77590	.867	.132
3	2.00	5.00	3.9368	.66542	-.151	-.092
4	1.00	4.00	2.3263	.90439	.535	-.433
5	1.00	5.00	3.2000	.64577	.755	2.801

6	1.00	5.00	1.3579	.65095	.429	1.718
7	2.00	5.00	3.7053	.61668	.002	-.221
8	1.00	4.00	2.0947	.52741	1.444	4.845
9	3.00	5.00	3.5158	.59899	.697	-.454
10	1.00	2.00	2.5789	2.16637	7.826	70.194
11	2.00	5.00	3.4632	.57999	.480	-.398
12	1.00	3.00	2.0842	.47631	.257	1.358
13	1.00	5.00	3.5158	.79711	-.053	.272
14	1.00	4.00	2.1474	.58288	1.952	7.199
15	2.00	5.00	3.8421	.62426	-.146	.142
16	1.00	5.00	2.0947	.58480	.314	.884
17	1.00	5.00	3.4737	.71224	-.447	.787
18	1.00	5.00	2.5263	.88537	.341	-.287
19	3.00	5.00	3.6526	.57922	.215	-.667
20	1.00	2.00	2.1263	.62300	-.091	-.426
21	1.00	5.00	3.6000	.73514	-.190	.771
22	1.00	5.00	2.5263	.89730	.371	-.351
23	1.00	5.00	4.2842	.70956	-1.203	3.540
24	1.00	5.00	2.2947	1.01974	.545	-.543
25	1.00	5.00	3.5474	1.00814	-.323	-.481
26	1.00	4.00	2.6947	.85145	-.209	-.519

To reveal the general tendency of students' perception on the use of smartphone in language learning in the Covid-19 pandemic. Descriptive statistics (min, max, mean, standard deviation, skewness, and kurtosis for students' perception are shown in Table 2. The results of the study show that the participants achieved a mean of 3.6632 and SD = .67808 for participants' perception to Item 1 (Learning languages using a smartphone is a lot of fun.). The participants achieved a mean of 2.3895 and SD = .77590 for participants' perception to Item 2 (Learning a language using a smartphone is not very fun.). The students achieved a mean of 3.9368 and SD = .66542 for participants' perception number 3 (Smartphones present a variety of language teaching materials.). The students achieved a mean of 2.3263 and SD = .90439 for participants' perception number 4 (Smartphones provide limited or no variety of language teaching materials.). The means and Standard Deviation (SD) for participants' perception number 5 to number 26 are clearly presented on Table 2. The normal distribution can be observed for all scales in this current study as illustrated by skewness and kurtosis value as presented in Table 2. The item's skewness and kurtosis values are mostly in the range -1 and +1. Univariate normality is considered to be supported according to the ± 2 threshold for the slope and kurtosis suggested by Kunnan (1998) in Peng (2013).

Table 3: Percentages of Students' Perception on the Use of Smartphone in Language Learning in the amidst Covid-19 Pandemic (N = 95)

Item	Min	Max	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1.	2.00	5.00	10.5	46.3	42.1	1.1	0
2.	1.00	4.00	0	12.6	18.9	63.2	5.3
3.	2.00	5.00	17.9	58.9	22.1	1.1	0
4.	1.00	4.00	0	14.7	17.9	52.6	14.7
5.	1.00	5.00	5.3	15.8	73.7	4.2	1.1
6.	1.00	5.00	1.1	0	38.9	53.7	6.3
7.	2.00	5.00	7.4	56.8	34.7	1.1	0
8.	1.00	4.00	0	3.2	9.5	81.1	6.3
9.	3.00	5.00	5.3	41.1	53.7	0	0
10.	1.00	2.00	1.1	12.6	18.9	60.0	7.4
11.	2.00	5.00	3.2	41.1	54.7	1.1	0
12.	1.00	3.00	0	0	15.8	76.8	7.4
13.	1.00	5.00	10.5	37.9	45.3	5.3	1.1
14.	1.00	4.00	1.1	2.1	12.6	78.9	5.3
15.	2.00	5.00	11.6	62.1	25.3	1.1	0
16.	1.00	5.00	0	1.1	18.9	68.4	11.6
17.	1.00	5.00	4.2	46.3	43.2	5.3	1.1

18.	1.00	5.00	1.1	13.7	31.6	44.2	9.5
19.	3.00	5.00	5.3	54.7	40.0	0	0
20.	1.00	2.00	0	0	26.3	60.0	13.7
21.	1.00	5.00	9.5	45.3	42.1	2.1	1.1
22.	1.00	5.00	1.1	14.7	29.5	45.3	9.5
23.	1.00	5.00	40.0	50.5	8.4	0	1.1
24.	1.00	5.00	1.1	15.8	16.8	44.2	22.1
25.	1.00	5.00	17.9	36.8	29.5	13.7	2.1
26.	1.00	4.00	0	16.8	44.2	30.5	8.4

The most frequent response of students' perception on the use of smartphone as revealed in Table 3. Table 3 displays that the proportion of participants who endorsed the five options on the Likert scale (strongly agree, agree, neutral, disagree, and strongly disagree). Table 3 symbolizes that the majority of participants expressed their responses "Disagree' on the statement: The smartphone cannot improve the students' language skills as students. (Item 8, 81.1%). This means that the smartphone can enhance the students' language skills as students. The next rank is followed by the statement: A smartphone cannot improve students' writing skills. (Item 14, 78.9%). This means that smartphone can toil students' writing skill. Followed by responses "Disagree" on the statement: Smartphone cannot improve the students' language skills. (Item 12, 76.8%). This means that smartphone can develop the students' language skillsThe response "Disagree" on the statement: The smartphone cannot improve my language skills. (Item 10, 60.0%) and the response "Disagree" on the statement: Smartphones cannot improve students' listening skills. (Item 20, 60.0%. This means that smartphone an improve students' listening skills. Detail explanation is displayed on Table 3.

B. Frequency of Responses to Smartphone Application Scale

The percentage of participants' responses to the use of smartphone in learning language in the outbreak of Covid-19 pandemic is illustrated in the following figures. Figure 3.

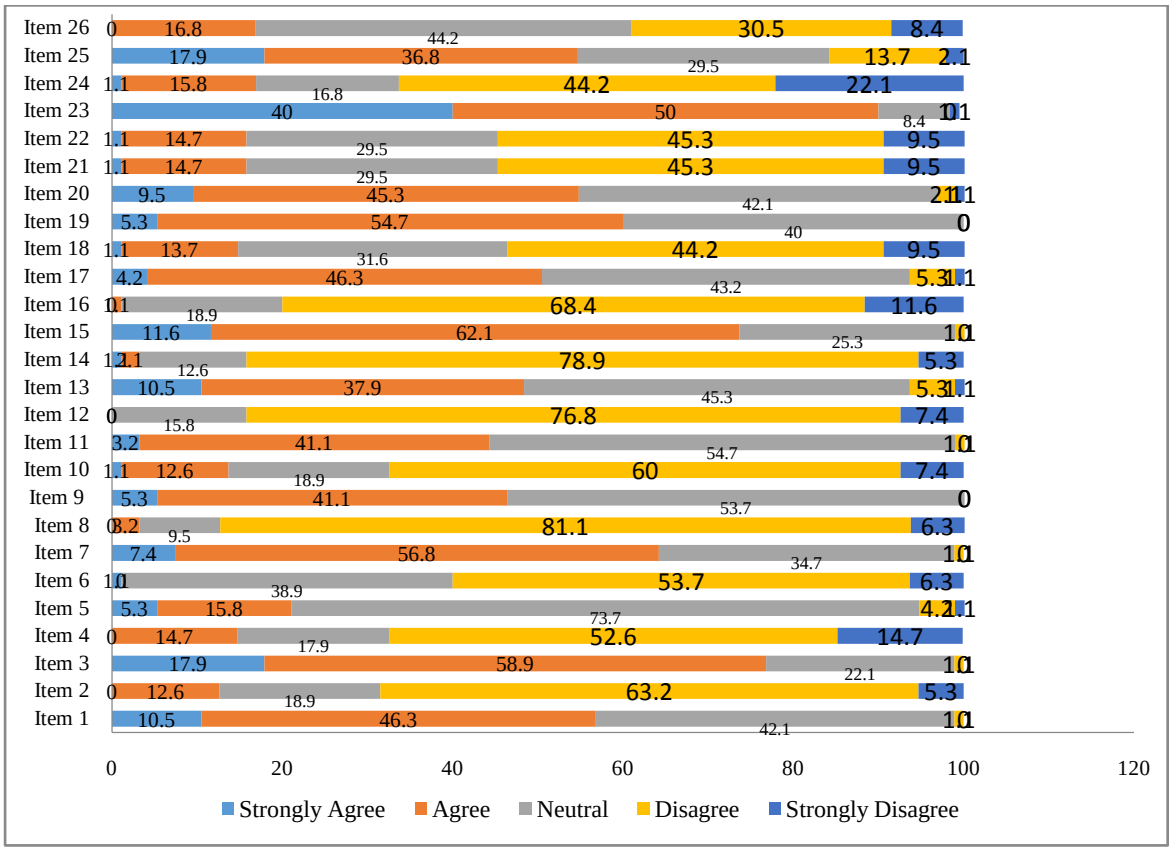

Figure 3. Proportion of Students' responses on the Use of Smartphone in Language Learning in the amidst Covid-19 Pandemic (N = 95)

Discussion and Conclusion

The current study investigates the use of smartphone application in learning language during the Covid-19 pandemicat higher education in Indonesia. The study therefore concludes that the smartphone can enhance the students' language skills. Other evidences from the study are smartphone can enhance students' writing skill, smartphone can develop the students' language skills, and smartphone can improve students' listening skills. This study reveals that the Smartphone is a technology communication device that can improve students' language skills.

This findings are consistent with Bllaca (2016, p. 314) who asserts that using smartphones and other cellphones studying technology one can get a lot of benefits, because they offer language learningopportunities are everywhere, and this is because of their portals and connectivityability. Godwin-Jones (2016) argues that smartphones have clearly moved from the fun toy category to the powerful pocket computer,it is not an easy task to take advantage of computing, communication, and collaboration capabilities for this purposeserious learning. Godwin-Jones also suggest that for instructed language learning, mobile complex, developed around the smartphones, provide challenges and opportunities.

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