

## THE PERCEPTION OF MOBILE ASSISTED LANGUAGE LEARNING BY UNIVERSITY STUDENTS IN BATAM

Jackfranco<sup>1</sup>, Wilson Tungli<sup>2</sup>, Asep Suryana<sup>3</sup>, Reinaldi Arsani Runtu<sup>4</sup>, Jo Sua<sup>5</sup>  
<sup>1,2,3,4,5</sup>Information System, Universitas Internasional Batam, Indonesia  
Email: [2031150.jackfranco@uib.edu](mailto:2031150.jackfranco@uib.edu)

### **Abstract**

*We as humans often use language as a bridge to connect and communicate with each other. Globalization has played a role in bridging the gap through languages acknowledged around the globe, one of these that took center stage in becoming a truly global language is the English language. One of the biggest benefactors of a global language is the mobile device. however, mobile devices would be able to play the role of cementing the English language in its importance. Therefore, this research aimed to learn how effectively can the perception of mobile devices be helped in learning the English Language, with the research focusing on higher educational environments such as university students in Batam City. This research was quantitative research using the Technology Acceptance Model and had dependent variables covering attitude towards using, and the behavioral intention of using. A total of 384 Respondent's data was collected for this research. In the end, the conclusion was that Mobile Assisted Language Learning (MALL) is proven to be effective in affecting those that used it. However, this would not discredit those that didn't have the intention to learn through a mobile device in the first place or those without a mobile device.*

**Keywords:** English Language, Mobile Assisted Language Learning (MALL), Mobile devices, Technology Acceptance Model, University Students

### **INTRODUCTION**

Globalization has put on a precedence over the application of a standardized language that can provide people around the world an opportunity to communicate with each other. The language that has taken the international stage in its influence through the last decade is the English language (Ilyasovna & Georgievna, 2021). Originated in England between the 5th and 7th centuries by the Anglo-Saxon migrants from Germany moving to the British Isles. This language first was taken notice as a religious tool that replaces Latin in Christianity due to its easiness to learn for non-native speakers. The English language soon made another leap from the rise of the United Kingdom, at that time called the British Empire. Asserting their dominance on a global scale through colonization of lands around the world

and implementing their language, the English language as a national language. Soon the more modern age came, with a superpower coming out of a post colonize lands of the British Empire. It is the United States of America, taking big steps toward securing the prosperity of its people. To frontline, their efforts by countering two world wars in making their impact felt real to people around the world. The capitalism that the United States of America soon took hold in global media, with multinational to international companies forming. Spreading the use of the English language to become a global and international language (Baleghizadeh & Aghazadeh, 2020).

### **Background**

Long gone are the days of carrying a brick for long-range communication or entertainment. The mobile expects the device to give easy choices to the user, for them to choose while being on the go. With the convenience of mobile devices, we can use them to help students in the way they earn their education (Wang et al., 2020). One type of education that could not be left too far is English education. The English language provides a tool for communicating with over 1,5 billion people around the world (Szmigiera, 2022). Taking advantage of the mobile age and combining it with language learning could be the perfect combination for the future of education.

The English language in Indonesia is considered a useful language on the international stage. For every future generation since its inclusion into Indonesia's national curriculum in 1953, has been an important part of giving students another language besides the national language to learn and understand. Year after year, English education has been enforced, yet, there seems to be neglect in its implementation. However, as time passes and the introduction of new technology came into Indonesia. English became an important part of securing Indonesia's future ambition and generation (Zubaidah, 2021). One of these technologies is the internet. A web of interconnecting communication between people close and far. It has become a common thing to see people interacting and having experiences.

With the raid of COVID-19, the once-in-a-lifetime occasion, the global lockdown has reshaped the way of our life, where the use of social media and the internet is upward like never before (Goel & Gupta, 2020). Two main services have popped up to become the main providers in making mobile devices possible being Android and Apple, which provide the app for mobile devices including language learning apps. In recent years, the application of these platforms has become more viable for education, including English language education, also they have VR (Virtual Reality) based to provide the learning of language. This advancement makes the use of Mobile Assisted language learning viable and usable in education (Berns & Reyes-Sánchez, 2021).

Language education plays a big part in the city of Batam. So-called the city of industry, with investment coming in often locally and internationally. One of the biggest investments internationally comes from Singapore, a country with English considered one of its recognized national languages. Located immediately very close to the north of Batam. This small island nation has led the way in terms of economy and education. Even with its vast cultural community of different people. This mirrors a part of Indonesia's heritage. Yet the quality economically and through education is still considered subpar globally. This leads to the evolution of an important part in building an ever-growing city like Batam (Danny et al., 2020). Implementation of these ideas towards education will play a part in launching a generation of youths ready to compete internationally. Multiple years of problems in the education system of Indonesia have been highlighted, making it more important in high education institutions that are on the frontline of advancements and changes. English education will eventually provide an opportunity by starting change through the curriculum. Important factors of language learning are through using the curriculum to focus on that fact in maintaining the local wisdom with local cultural values (Haerazi & Irawan, 2020).

In our daily lives, language has a vital role for us as humans, to communicate ideas to others. Essentially, the English language is an important skill for the

expression of one's self feelings, desires, opinions, and the needs of an individual. The more languages a person knows, the easier it is for them to communicate (Susanthi, 2020). The understanding of English should be recognized by students to be an international language. The ever-present need for English has skyrocketed this last decade with it becoming a tool in businesses and important to Indonesia's growing economy. As a tool for communication, it needs to be given precedence. Especially in the age of mobile devices. More and more people will notice the ever change and adaptation towards new media that is now present. Mobile-assisted language learning will play a part in these changes. As it drives pole higher to be able to clear the bar for language education in the modern age. Given the fast rise that is the City of Batam. This focus on an English education that implements the ease of mobile devices will be present. However, its acceptance in a community will be paramount to its success as a whole. Mobile-assisted language learning needs the cooperation of all parties, of which the ones most needed are the students of high education intuitions. Quantifying the acceptance of Mobile-assisted language learning will help in its implementation.

### **Literature Review**

This research is mainly based on the research of (Katemba, 2021). The journal talks about the possibility of the integration of technology-based learning through the utilization of mobile-assisted language learning at a rural school in Indonesia. The goal of this research is to show the effectiveness and the possibility of utilizing such methods in an educational institution based in the rural area of Bandung. Differentiating between two classes in the same school's 8th grade with studies covering 14 weeks equivalent to 40 hours of school. The two groups of students were given a test pre-experiment and then a test after one of the groups was taught through mobile-assisted language learning. In the end, the test showed there was a significant improvement in the group with mobile-assisted language learning implemented. In the end, it showed that mobile-assisted language learning has a positive impact on the academic abilities of students in the 8th grade.

This research is supported by the research of Hsu & Lin, 2022. This research focuses on implementing the technology acceptance model for college students. Using mobile-assisted language learning as a subject in proving the method by incorporating psychological constructs. Leading towards behavioral intention as an important part in creating acceptance. The data of the research is gathered through a large-scale survey of 557 Taiwanese college EFL students that were analyzed through structural equation modelling. The research's focal point was based on non-preoccupation, non-hesitation, and non-volatility through questions presented in the survey. In the end it showed a perceived usefulness towards mobile-assisted language learning. Concluding that explained variance ( $R^2$ ) of 80% for behavioral intention making it possible to contribute to the long-term development of MALL, especially in a college environment.

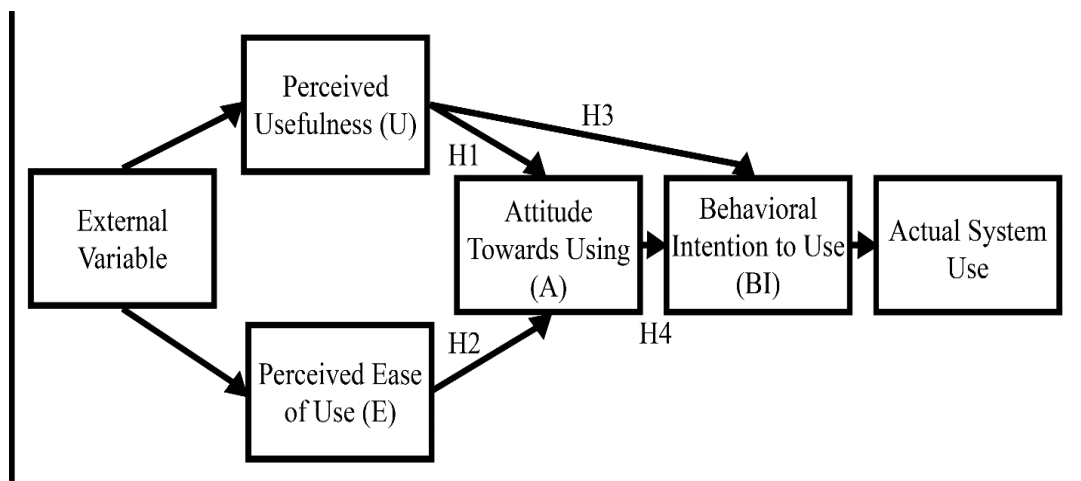
This research is also based on Mutiaraningrum & Nugroho, 2021 research. This research was focused on the availability of Smartphone-based mobile-assisted language learning applications and their usage by higher vocational education students in Indonesia. The study aims to assist in providing educational management and restraints of smartphone-based mobile-assisted language learning in language learning from the students' point of view including their recommendation for further implementation of the smartphone-based mobile-assisted language learning to help students engage better. The study implements the methods of content analysis in analyzing the data obtained using an acceptance model by giving open-ended questions to students. The conclusion of the study shows that confusion and technical problems are the main hinderances for smartphone-based mobile-assisted language learning. Recommendations were also followed as a byproduct through the methods tested and directly from the respondents. Such as MALL's practicality, portability, accessibility, and flexibility paired with a supportive educational system.

This research is focused on analyzing the technology acceptance of MALL (Mobile Assisted Language Learning) of college students in Batam. The

implementation of this idea is based on the research of Katemba, 2021. The implementation of quantitative research using the technology acceptance model is based on the research u & Lin, 2022). The implementation of college students is based on the research of Mutiaraningrum & Nugroho, 2021.

**METHODOLOGY**

This research is quantitative research using the technology acceptance research model. The model has been used in the research of Hsu & Lin, 2022 This research has independent variables covering perceived usefulness, and perceived ease of use. This research has dependent variables covering attitude towards using,



and behavioral intention to use.

Source: Hsu & Lin, 2022

Image 1. Technology Acceptance Model

Research Hypothesis is shown as followed:

H1a: Perceived Usefulness of college students using MALL has an impact on Attitude towards using.

H10: Perceived Usefulness of college students using MALL has no impact on Attitude towards using.

H2a: Perceived Ease of use of college students using MALL has an impact on Attitude towards using.

H20: Perceived Ease of use of college students using MALL has no impact on Attitude towards using.

H3a: Perceived Usefulness of college students using MALL has an impact on Behavioral Intention to use.

H30: Perceived Usefulness of college students using MALL has no impact on Behavioral Intention to use.

H4a: Attitude towards using of college students using MALL has an impact on Behavioral Intention to use.

H40: Attitude towards using of college students using MALL has no impact on Behavioral Intention to use.

Operational Definition Variable that is used to improve the research instrument is showed in table 1:

*Table 1. Operation Definition Variables*

<b>VARIABLE</b>	<b>IDENTIFIER</b>	<b>INDICATORS</b>
Perceived Usefulness	PU1	I feel that using MALL for learning foreign languages is very useful
	PU2	I feel that using foreign languages on smart devices is really needed
	PU3	I feel that with MALL, learning foreign languages is made easier
Perceived Ease of Use	PE1	Using MALL can make it easier for foreign language learners to learn
	PE2	Using MALL, can make foreign language learning faster
	PE3	Using MALL, can make foreign language learning more convenient
Attitude Towards	AT1	Smart devices are helpful

Using		for learning foreign languages
	AT2	Learning foreign languages using MALL is easy
	AT3	Using smart devices to learn foreign languages is useful
Behavioral Intention to Use	BI1	I want to use MALL for learning foreign languages
	BI2	I want MALL to be available on my smart device
	BI3	I want to learn foreign languages using my smart device

*Source: Hsu & Lin, 2022*

Method analysis is done by using SPSS and AMOS with Regression/SEM Analysis. Analysis is started by testing the validity and reliability of each variable by using SPSS. Each variable is considered valid when tested against the Pearson Correlation Coefficient with score higher than 0,05 and significance value less than 0,05, however a variable is considered reliable when tested against Cronbach's Alpha formula with a score of more than 0,6. The variables would then be tested using the Regression Weight method through the software AMOS. A hypothesis variable is correct when the P score from the Regression Weight test is < 0.005 which is represented by the symbol of \*\*\*.

## **FINDINGS**

### **Respondents Description**

In this research, our target respondents are university students in Batam, where the population counts are more than 12000 and the sample analysis that we managed to get are 384 college students. The sample method that we use is Clustered Disproportional Random Sampling Cluster with: Universitas Internasional Batam, Universitas Putera Batam, Universitas Riau Kepulauan. Based



on our research that the respondents consist of 142 Male (36.9%), and 242 Female (63.1%).

*Table 2. Respondents based on genders*

<b>Item</b>	<b>Frequency</b>	<b>Percentages</b>
Male	142	36.9%
Female	242	63.1%
<b>Total</b>	<b>384</b>	<b>100%</b>

*Source: Writers Analyzed Data, 2022*

Based on the research we found out that 97.9% of respondents have their own mobile device, while the other 2.1% don't own any mobile devices.

*Table 3. Respondents based on genders*

<b>Item</b>	<b>Frequency</b>	<b>Percentages</b>
Owned	376	97.9%
Don't own	8	2.1%
<b>Total</b>	<b>384</b>	<b>100%</b>

*Source: Writers Analyzed Data, 2022*

## **Test Result**

### **Validation and Reliability Test**

Validity testing is carried out with the help of SPSS software to test the quality of the data that was collected. A variable is declared valid if the entire significance value is less than 0.05 and from the results of this validity test, all variables show the Pearson Correlation value of more than 0.05. Reliability testing was carried out with the help of SPSS to test the level of reliability of a variable after the data was collected. A variable is declared reliable if the Cronbach's Alpha value is above 0.6 From the results of the reliable test, all the variables tested were reliable with Cronbach's Alpha value of more than 0.6.

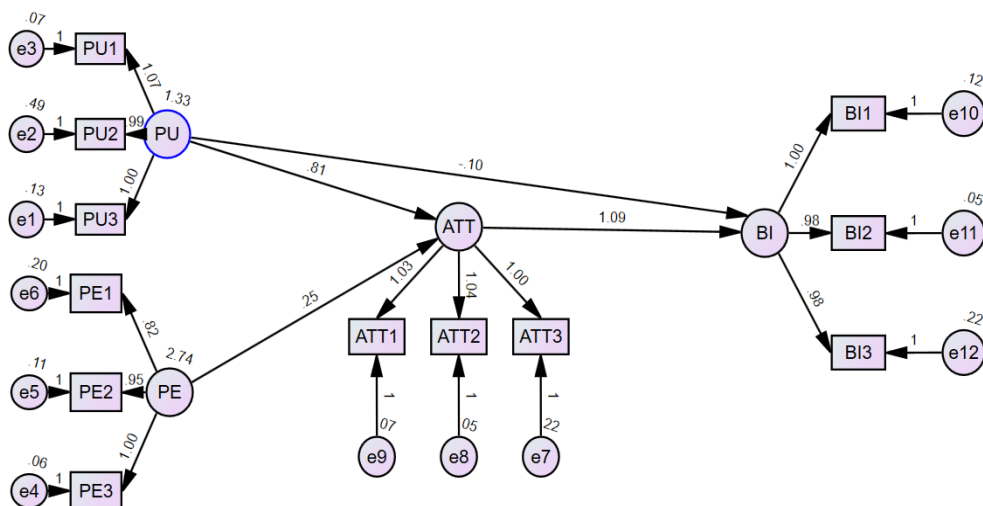
### **Regression Weight Test**

Regression Weight testing is done with the help of AMOS software. The measurement model for the AMOS Structural Equation Modeling (SEM) test shows here the result between 2 dependent variables and 2 independent variables. The results of this test are shown in the next table.

Table 4. Results of SEM test

Variable Relationship	Estimate	S.E.	C.R.	P Label
ATT ← PU	.807	.023	34.629	***
ATT ← PE	.246	.009	27.639	***
BI ← ATT	1.094	.043	25.512	***
BI ← PU	-.101	.027	-3.705	***

Source: Writers Analyzed Data, 2022



Source: Writers Analyzed Data, 2022

Image 2. Measurement Model

In the table above, the P value shows 0.005 where the independent variable affects the dependent variable which means all hypothesis is acceptable. Estimate and P results from the Regression Weight test show that Perceived Usefulness and Perceived Ease of Use affect Attitude Towards Using. also, the test results show that the Attitude Towards Using greatly affects Behavioral Intention to Use, but Perceived Usefulness actually reduces the effect on Behavioral Intention to Use. From the test results, it can be concluded that the definition of the SEM equation is as follows.

$$ATT = 0.807*PU + 0.246*PE$$

$$BI = 1.094*ATT + -0.101*PU$$

## DISCUSSION

This study aims to determine the perceptive effectiveness of Mobile Assisted Language Learning (MALL) by university student of Batam City. The research uses Technology Acceptance Model. The results of the research shows that most of the hypothesis from the variables are correct bar from one. That being the effects of Perceived Usefulness (PU) having a negative effect on Behavioral Intention (BI). This can be explained through the research of Biwer that during the pandemic there seems to be an adjustment of change and adaptation which leads to some student being less accepting towards new ideas, even if those ideas can be perceived as useful to them. During online learning, the notion self-regulation would be seen to be more useful than through other means making the Behavioral Intention (BI) be negatively affected by Perceived Usefulness (PU) (Biwer et al., 2021).

The Variable of Attitude Towards Using (ATT) has shown the huge positive influence on Behavioral Intention (BI). This shows that having the right attitude towards Mobile Assisted Language Learning (MALL) will make the user of the mobile device more likely to implement Mobile Assisted Language Learning (MALL) in their language learning routine. Continuing on the notion self-regulation, once the attitude of the user is established through understanding the risk and benefits Mobile Assisted Language Learning (MALL) provides them, a sense of cause is develop making the system be effective towards language learning.

Perceived Usefulness (PU) and Perceived Ease of Use (PE) both plays a role in dynamically affecting the Attitude Towards Using (ATT) of a system

(Kavitha & Gopinath, 2021). Perceived Usefulness (PU) have the larger of the two positive influences compared to Perceived Ease of Use (PE) that have a smaller influence. This creates a problem in giving value to Perceived Usefulness (PU) as it has a negative influence on Behavioral Intention (BI). This shows that Perceived Usefulness (PU) has a little negative influence on Behavioral Intention (BI) when paired with Attitude Towards Using (ATT), however when paired with Perceived Ease of Use (PE), it would show that have a positive result.

In the end, the research shows that the perception of Mobile Assisted Language Learning (MALL) can affect the help given to university student of Batam City in language learning. However, it can only happen if the Perceived Usefulness (PU) has already affected the Attitude Towards Using (ATT), therefore there would be an overall positive effect in its usefulness. Nonetheless, during the pandemic there was an imposed self-regulation that makes Perceived Usefulness (PU) negatively affect the perception of Mobile Assisted Language Learning (MALL) due to its connection to online learning. Besides that, there is also a sense of not knowing from users that doesn't own a mobile device having a small but still noticeable effect on the relationship between variables. Given the perceptive influence of the variables, there is an affect in Mobile Assisted Language Learning (MALL) perception.

## **CONCLUSION**

This research focuses on the technology acceptance of MALL (Mobile Assisted Language Learning) of college students in Batam. This research is quantitative research using the technology acceptance research model. This research has dependent variables covering attitude towards using, and behavioral intention to use. Method analysis is done by using SPSS and AMOS with Regression/SEM Analysis.

In this research, our target respondents are college students in Batam, where the population counts are more than 12000 and the sample analysis that we

managed to get are 384 college students. From the results of this validity test, all variables show the Pearson Correlation value of more than 0.05. From the results of the reliable test, all the variables tested were reliable with Cronbach's Alpha value of more than 0.6.

Estimate and P results from the Regression Weight test show that Perceived Usefulness and Perceived Ease of Use affect Attitude Towards Using. also, the test results show that the Attitude Towards Using greatly affects Behavioral Intention to Use. But Perceived Usefulness actually reduces the effect on Behavioral Intention to Use.

## REFERENCES

- Baleghizadeh, S., & Aghazadeh, S. (2020). Content Analysis of an English Language Teaching Grammar Textbook from a Cultural Perspective and Status of English as an International Language. *Critical Language & Literary Studies*, 17(24), 121–144. <https://doi.org/10.1080/2331186X.2020.1844849>
- Berns, A., & Reyes-Sánchez, S. (2021). A Review of Virtual Reality-Based Language Learning Apps. *RIED-Revista Iberoamericana de Educación a Distancia*, 24(1), 159–177. <https://doi.org/10.5944/RIED.24.1.27486>
- Biwer, F., Wiradhany, W., oude Egbrink, M., Hospers, H., Wasenitz, S., Jansen, W., & de Bruin, A. (2021). Changes and Adaptations: How University Students Self-Regulate Their Online Learning During the COVID-19 Pandemic. *Frontiers in Psychology*, 12(1), 1–12. <https://doi.org/https://doi.org/10.3389/fpsyg.2021.642593>
- Danny, F., Dewi, H. C., Febi, N. B., Aprillia, D. P., Goan, G. H., Julie, N. C., Gustini, W., & Alia, A. (2020). ICT-based border detection between Indonesia and Singapore. *Journal of Physics: Conference Series*, 1469(1), 1–7. <https://doi.org/10.1088/1742-6596/1469/1/012092>
- Goel, A., & Gupta, L. (2020). Social Media in the Times of COVID-19. *Journal of Clinical Rheumatology*, 26(6), 220–223. <https://doi.org/10.1097/RHU.0000000000001508>
- Haerazi, H., & Irawan, L. A. (2020). Developing Intercultural Language Learning (ILL) model to teach writing skills at Indonesian private universities. *EduLite*:

*Journal of English Education, Literature and Culture*, 5(1), 43–54.  
<https://doi.org/10.30659/e.5.1.43-54>

- Hsu, H. T., & Lin, C. C. (2022). Extending the technology acceptance model of college learners' mobile-assisted language learning by incorporating psychological constructs. *British Journal of Educational Technology*, 53(2), 286–306. <https://doi.org/10.1111/BJET.13165>
- Ilyasovna, N. A., & Georgievna, K. A. (2021). Globalization of the English language. *Yekaterinburg: LLC "Publishing House "Azhur,"* 180–183. <http://hdl.handle.net/10995/100435>
- Katempa, C. V. (2021). Enhancing Vocabulary Performance Through Mobile Assisted Language Learning at a Rural School in Indonesia. *Acuity: Journal of English Language Pedagogy, Literature and Culture*, 6(1), 1–11. <https://doi.org/10.35974/acuity.v6i1.2457>
- Kavitha, J., & Gopinath, R. (2021). A Study on Perception of Internet Banking Users Service Quality - A Structural Equation Modeling Perspective. *IIMB Management Review*, 30(4), 357–368. <https://doi.org/https://doi.org/10.1016/j.iimb.2018.05.007>.
- Mutiaraningrum, I., & Nugroho, A. (2021). Smartphone-based mobile assisted language learning application in higher vocational education in Indonesia. *JEES (Journal of English Educators Society)*, 6(1), 26–34. <https://doi.org/10.21070/jees.v6i1.793>
- Susanthi, I. G. A. A. D. (2020). View of Kendala dalam Belajar Bahasa Inggris dan Cara Mengatasinya. *Linguistic Community Service Journal*, 1(2), 64–70. <https://doi.org/https://doi.org/10.55637/licosjournal.1.2.2658.64-70>
- Szmigiera, M. (2022, April 1). *Most spoken languages in the world | Statista*. Statista. <https://www.statista.com/statistics/266808/the-most-spoken-languages-worldwide/>
- Wang, C., Wang, Y., Chen, Y., Liu, H., & Liu, J. (2020). User Authentication on Mobile Devices: Approaches, Threats and Trends. *Computer Networks*, 170(1), 107118. <https://doi.org/10.1016/J.COMNET.2020.107118>
- Zubaidah, N. (2021, July 13). *Kemendikbudristek Petakan Kompetensi Calon Guru Bahasa Inggris : Okezone Edukasi*. Okezone. <https://edukasi.okezone.com/read/2021/07/13/65/2439917/kemendikbudristek-petakan-kompetensi-calon-guru-bahasa-inggris>