

# Negative Effects of MALL on the Improvement of Learners' Autonomy and Motivation

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**Abstract.** Although MALL (Mobile Assisted Language Learning) cannot be considered as a latest platform in EFL (English as a Foreign Language) learning, there seems to be lack of information regarding its effects on learners' autonomy and motivation. The present study aims to analyze the effects of MALL on learners' autonomy and motivation. In order to obtain the results, the respondents are divided into experimental and control classes. While the experimental class is given MALL integrated English lessons, the control class is given traditional learning sessions. A set of questionnaires adapted from Taguchi, Magid & Papi (2009) and Cotterall (1999) was given before and after treatment. In addition, semi-structured interviews were conducted to provide deeper insights of matter. The results suggest that MALL seems to impact learners' autonomy and motivation negatively. Nevertheless, it does not mean that MALL is not without merits as respondents suggest that they use mobile phones to look up for the meaning of 'difficult' phrases or subjects they did not understand. However, respondents prefer to be guided by teachers instead of being autonomous learners. The results of present study suggest that being an autonomous and motivated learner is something that needs to be instilled since early stage of language learning. Besides that, teachers have important roles in instilling learners' motivation and autonomy. Thus, providing teachers with sufficient trainings that will help teachers to instill learners' motivation and autonomy.

**Keywords:** MALL, EFL learning, learners' autonomy, learners' motivation.

## 1. INTRODUCTION

Learners' autonomy and motivation are two important factors in EFL learning. Numerous studies have reported the importance of learners' autonomy and motivation in language learning (Ahmadi, 2011; Deci & Ryan, 1985; Fukuda, Sakata, & Takeuchi, 2011; Liu, 2012; Zarei & Zarei, 2015). An autonomous learner shows more interest in language learning and take more responsibility (Nguyen, 2012). Similarly, a motivated learner will be more likely to reach their learning goals. Furthermore, learners' autonomy and motivation have a strong correlation. As argued by Ushioda (1996), there is no autonomy without motivation. It is claimed that motivation can be strengthened by autonomy (Dickinson, 1995). It is because autonomous learning is considered crucial in creating more effective and independent learners. In addition, it is also considered as one of educational goals of teachers (Smith, 2008).

A study of Zhou, Ma & Deci (2009) showed the importance of autonomy in motivating a group of Chinese children. Similar point is also illustrated by Liu's (2012) study on relations among language anxiety, motivation, autonomy, and proficiency among a group of university students in Taiwan. It can be said that learners' autonomy and motivation might affect learners significantly. Due to its importance, there have been numerous studies on EFL learners' autonomy and motivation. A study of Spratt, Humpreys, & Chan (2002) reported that more autonomous learning practices were conducted by more motivated language learners. In addition, Pu's (2009) study on autonomous learning and its correlation with motivation in a web-based computer-assisted language learning from five universities in Southern China suggested a strong relationship between autonomous learning and motivation. Those studies illustrate a close relationship between learners' autonomy and motivation in EFL learning.

Language learning encourages motivation and autonomous learning. As argued by Almusharraf (2018), autonomy and self-determination are needed by EFL learners as they have to learn diligently to learn vocabulary beyond classroom. Related to the aforementioned point, several studies suggest that technology-enhanced environments can improve learners' motivation, engagement and productivity (Prensky, 2007;

Roblyer & Doering, 2010). One of platforms used to foster learners' autonomy and motivation is Mobile Assisted Language Learning (MALL). Furthermore, technology seems to have potential to improve necessary skills linked with autonomy (Benson, 2001). In addition, a study of Fageeh (2013) on the effects of MALL on a group of EFL learners' motivation in Saudi Arabia revealed positive impacts of the use of mobile devices on learners' motivation. However, a study of Chu (2014) on potential negative effects of mobile learning suggests that MALL might influence students negatively due to the heavy cognitive load caused by an improper learning design. In this regard, there is still a debate on the effects of MALL on learners' autonomy and motivation. In addition, there is still lack of research on MALL's effects on learners' autonomy and motivation, especially in the contexts of Indonesian EFL learners. Therefore, the present study aims to analyze the effects of MALL on learners' autonomy and motivation. Thus, the present study is specifically guided by following research question;

RQ1. What are the effects of MALL on learners' autonomy and motivation?

## **2. LITERATURE REVIEW**

This section aims to analyze theoretical background of present study. Firstly, learners' autonomy and motivation in EFL learning will be discussed. Next, MALL and related studies will be reviewed.

### **2.1 Learners' autonomy and motivation**

Autonomy and motivation have crucial roles in EFL learning. In this regard, autonomy can be defined as taking control of one's own learning (Benson, 2001, p.48). On the other hand, motivation refers to a set of choices and efforts that people make to reach their goals (Igoudin, 2008; Keller, 1983; Lightbrown & Spada, 2006; Oxford & Shearin, 1994; Ryan & Deci, 2000). Because language education gradually turns to a learner-centred approach (Benson, 2001; Ciekanski, 2007; Egel, 2009; Sakai, Takagi & Chu, 2010; Sims, 2012; Ushioda, 1996), it seems imperative for learners to develop their autonomy to manage their learning goals and strategies. Autonomous learners will be more responsible to their learning while motivation helps learners to maintain their interests in language learning. Besides that, autonomous learners tend to be more self-determined than being controlled (Liu, 2015) while motivated learners apply various learning strategies (Lan & Oxford, 2003; Oxford & Nyikos, 1989) and show more proficiency in reading (Liu, 2010). It can be said there are significant places for autonomy and motivation in learners' language learning process.

Several studies have analyzed the correlation between learners' autonomy and motivation. Both factors can predict one's success in language learning. Several studies show how motivation can be regarded as the main predictor for learners' achievement in language learning (Shih & Gamon, 2001; Gömleksiz, 2001; Zhang, Su, & Liu, 2013) while autonomous learning can be considered as one of foundations for teaching and learning English for a specific purpose (Ajideh, 2009; Thanasoulas, 2000). Autonomy can be regarded as a basic need that can improve learners' intrinsic motivation (Little, 1989, 2007; Spratt, Humphreys & Chan, 2002). In addition, learners need to feel related, competent and autonomous to develop their intrinsic motivation (Ryan & Deci, 2000). In this sense, being an autonomous learner can make one to be more motivated to learn English. It can be said that autonomy and motivation correlate with each other.

### **2.2 MALL**

The presence of CALL (Computer Assisted Language Learning) has given a way for the use of mobile devices for language learning or MALL. Similar to CALL, MALL is considered beneficial for EFL learners. MALL can be defined as "the use of technologies such as mobile phones, MP3/MP4 players and palmtop computers for language learning" (Kukulka & Shield, 2008, p. 3). It can be said that MALL covers any kind of language learning assisted by mobile devices. MALL encourages sense of individuality, community, and the ability to learn everywhere, allowing learners to have sense of freedom and independence (Kim & Kwon, 2012). It is because the use of mobile devices allows teachers and learners to obtain substantial educational benefits such as recording and playing audios, low costs, portability, learner-friendly, accessibility and interactivity (Kukulka-Hulme & Shield, 2008; Stockwell, 2010; Wishart, 2008). The above points show the advantages of MALL to language learners.

Despite the benefits mentioned in the above paragraph, it is argued that MALL might create challenge for learners and teachers. Several studies suggest its advantages. MALL is considered effective in enhancing learners' vocabulary and vocabulary knowledge (Chen & Hsu, 2008). MALL is also beneficial for heightening learners' autonomy and collaboration (Cho, 2009; Lee, 2010). A study of Kiernan & Aizawa (2004) on the effects of mobile phones on task-based language learning showed that MALL helped promoting L2 acquisition

and making learners more focused on meaning. Nevertheless, Thornton & Houser (2005) remarked that the small size of mobile phone's screen might hinder MALL 's implementation while Stockwell (2008) deduced that the cost of mobile phones might discourage learners and teachers from using MALL in the class accordingly. In addition, Chartrand (2016) argued that mobile devices can be distracting to learners and technical problems might arise. It can be said that although MALL may have good merits on learners, it seems not without some negative effects on learners.

### 3. METHOD

The present study uses a quasi-experimental method to obtain its data. The respondents are divided into two classes; experimental and control classes. The prior class consists of 34 respondents whereas the latter class consists of 35 respondents. The experimental class got general English learning which was integrated with MALL while the control class got traditional English learning. In addition to attending a traditional class, the experimental class got English lessons which were integrated with mobile devices. After every session, students of the experimental class needed to submit their homework through mobile devices. In addition, they were tasked to get an additional English learning through a mobile application. The treatment lasted for fourteen sessions. Each session lasted around one and half hour.

The present study uses questionnaires and semi-structured interviews as research instruments. The questionnaires used in the present study were adapted from Taguchi, Magid & Papi (2009) and Cotterall (1999). Before the questionnaires were distributed to the respondents, a pilot study was conducted to check the validity of both questionnaires by using Pearson product moment and Cronbach's table shows the results of pilot study:

	Variables						
	Teachers		Feedback				
No.	1.	2.	3.	4.	5.	6.	
<b>Pearson correlations</b>	.816	.816	1.000**	1.000**	1.000**	1.000**	
<b>Sig. (2-tailed)</b>	.814	.814	0.000	0.000	0.000	0.000	
<b>N</b>	4	4	4	4	4	4	
	Variables						
	Self-efficacy			Important strategies			
No.	7.	8.	9.	10.	11.	12.	13.
<b>Pearson correlations</b>	1.000**	1.000**	1.000**	.827	.903	.911	.827
<b>Sig. (2-tailed)</b>	0.000	0.000	0.000	.173	.097	.089	.173
<b>N</b>	4	4	4	4	4	4	4

\*\* . Correlation is significant at the 0.01 level (2-tailed).

**Table 1. Autonomy Questionnaires' Pilot Study**

	Variables								
	Criterion measures			Ideal L2 self			Ought-to L2 self		
No.	1.	2.	3.	4.	5.	6.	7.	8.	9.
Pearson correlations	.816	1.000**	1.000**	1.000**	1.000**	1.000**	1.000**	1.000**	1.000**
Sig. (2-tailed)	.814	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
N	4	4	4	4	4	4	4	4	4
	Variables								
	Family influence		Instrumentality			Attitudes to learning English			
No.	10.	11.	12.	13.	14.	15.	16.		
Pearson correlations	.816	.816	.845	.845	0.845	0.816	0.816		
Sig. (2-tailed)	.183	.183	.154	.154	0.154	0.183	0.183		
N	4	4	4	4	4	4	4		
	Variables								
	Linguistic confidence				Learning interest				
No.	17.	18.	19.	20.	21.	22.	23.		
Pearson correlations	.997	.997	.997	.904	.995**	0.855	0.916		
Sig. (2-tailed)	.002	.002	.002	.095	0.005	0.144	0.083		
N	4	4	4	4	4	4	4		

\*\* . Correlation is significant at the 0.01 level (2-tailed).

**Table 2. Motivation Questionnaires' Pilot Study**

In addition to the questionnaires, semi-structured interviews were conducted to obtain more insights on how MALL influenced the respondents' autonomy and motivation. The respondents consist of four students. Due to the nature of the present study, quantitative and qualitative data will be analysed differently. While quantitative data will be analysed using SPSS 23, qualitative data will be transcribed and coded according to several categories.

#### 4. RESULTS AND DISCUSSIONS

This section aims to discuss the results of present study. Thus, the results will be shown before they are discussed in a different sub-section.

##### 4.1 Results

The present study analyses learners' autonomy and motivation. In order to provide better organization, the results of autonomy' questionnaires will be analyzed first before the results of motivation' questionnaires.

Variable	Before Treatment						After Treatment					
	Experimental Class			Control Class			Experimental Class			Control Class		
	Mean	Med	Std. Dev	Mean	Med	Std. Dev	Mean	Med	Std. Dev	Mean	Med	Std. Dev
1. Teachers' roles	3.50	3.50	.509	3.30	3.00	.669	3.20	3.00	.551	3.03	3.00	.669

2. Feed-back' roles	3.47	3.00	.507	3.47	3.50	.547	3.23	3.00	.504	3.33	3.00	.547
3. Learners' efficacy	3.23	3.00	.568	3.10	3.00	.556	3.03	3.00	.414	2.97	3.00	.556
4. Learners' motivational strategy	3.40	3.00	.621	3.50	4.00	.498	3.23	3.00	.504	3.40	3.00	.498

**Table 3. The results of autonomy' questionnaires**

The above table shows that before treatment, experimental class believed that teachers have important roles in improving learners' autonomy (M=3.50). However, it experienced a decreasing point after treatment (M=3.20). After teachers, experimental class also thought feedback (M= 3.47) and learners' motivational strategies (M=3.23) have important roles in influencing learners' autonomy. Nevertheless, the points of both variables decreased (M=3.23) after treatment. However, learners' efficacy still obtained the lowest point before (M=3.23) and after treatment (M=3.03). On the other hand, the most salient variables in control class are learners' motivational strategy (M=3.50) and feedback (M=3.47). After treatment, the points of both variables decreased (M=3.40) and (M=3.33). Unlike experimental class, teachers are not the most salient variable in the control class, before (M=3.30) and after treatment (M=3.03). Similar to control class, learners' efficacy experienced the lowest point before (M=3.10) and after treatment (M=2.97). Both experimental and control classes experienced declining points after treatment.

Following are the results of motivation' questionnaires:

Variable	Before Treatment						After Treatment					
	Experimental Class			Control Class			Experimental Class			Control Class		
	Mean	Med	Std. Dev	Mean	Med	Std. Dev	Mean	Med	Std. Dev	Mean	Med	Std. Dev
1. Criterion measures.	3.17	3.00	.791	3.30	3.00	.651	3.03	3.00	.490	3.20	3.00	.561
2. Ideal L2 self.	3.57	4.00	.626	3.50	4.00	.820	3.27	3.00	.640	3.40	3.00	.632
3. Ought-to-L2-self.	3.23	3.50	.679	3.37	3.50	.765	3.23	3.00	.504	2.67	3.00	.900
4. Family influences	2.90	3.00	.803	3.03	3.00	.765	2.90	3.00	.662	2.80	3.00	.775
5. Instrumental motivation	3.50	4.00	.682	3.60	4.00	.675	3.20	3.00	.551	3.27	3.00	.704
6. Attitudes toward English language learning	3.07	3.00	.740	3.20	3.00	.805	3.00	3.00	.587	3.13	3.00	.640
7. Linguistic confidence	3.60	4.00	.563	3.63	4.00	.615	3.27	4.00	.521	3.60	4.00	.632
8. Interest toward English language learning.	3.27	4.00	.691	3.53	4.00	.681	3.17	3.00	.461	3.20	3.00	.775

**Table 4. The results of motivation's questionnaire**

Similar to the results of autonomy's questionnaires, the above table shows declines after treatment. Before treatment, the most salient variables in experimental class are linguistic confidence (M= 3.60) and instrumental motivation (M= 3.50) whereas the less salient variables are family influences (M=2.90) and attitudes toward English language learning (M=3.07). After treatment, linguistic confidence (M=3.27) is still one of the most salient but ought-to-L2 self (M= 3.23) replaced instrumental motivation (M= 3.20). In addition, family influences (M= 2.90) and attitudes toward English language learning (M=3.00) are still ones with less salient points.

## 4.2 Discussions

Both table 1 and 2 show declining points in all variables after treatment. However, it cannot be deduced that MALL has failed in improving learners' autonomy and motivation. Some respondents admit that they used mobile phones to learn English. Following are the respondents' comments regarding their reasons to use mobile phones in learning English: "Because (using mobile phones) will (make it) easier to find (the meaning) of vocabulary or answers (which are) difficult to answer. Using mobile phone also helps me to understand the meaning of words or phrases said by teachers or lecturers." Student 2. "Because (mobile phones) makes it faster to find (the meaning) of vocabulary we want to know." Student 3

The above comments suggest that the respondents admitted that using mobile phones help them to access valuable information regarding English learning such as finding the meaning of difficult phrases or understanding more complex materials from teachers. In addition, a respondent said that mobile phones help him to be more autonomous in learning. Following is the comment:

"...in my opinion the use of mobile phones to learn English, umm, can motivate us to learn autonomously. (It is) because the use of mobile phones umm, can help us in...making learning easier and (it also helps us to) translate (Indonesian words) to English." Student 4.

The above comment shows that a respondent seems aware of the benefits of mobile phones in learning English. Nevertheless, the interviews' results suggest that most respondents did not consider its merit in English learning, especially in improving their autonomy and motivation. Although it does not mean that most Indonesian EFL learners are not aware of the benefits of MALL for improving their autonomy and motivation, it can be inferred that most learners only use it to access answers, not learning through it.

Unlike the results of present study, several studies show that using mobile devices can result in the improvement in students' motivation (Ciampa, 2013; Huang, Lin & Cheng, 2010; Rogers, 2011; Zheng, Chen & Kong, 2017). A study of Lin, Cheng, & Lin (2017) on the effects digital learning on learning motivation and learning outcome of 116 students in Taiwan suggests that digital learning affects students' motivation and outcome positively than traditional teaching. Nevertheless, a study of Froese *et al.* (2012) implies a negative effect of mobile phone as a potential distraction for classroom learning. In addition, some learners complained about the difficulty in navigating web pages using smart phones (Fozdar & Kumar, 2007; Harrison, Flood, & Duce, 2013). It can be deduced that despite several reports on the improvement in learners' motivation due to MALL, it is not without some disadvantages.

In regards of the results of present study, MALL might not result in the improvement in learners' autonomy and motivation because most respondents are not used to learn English autonomously. Hence, they seem to be less motivated when they had to learn English autonomously through MALL. It can be deduced from following comment of Student 1, "Sometimes I learn English because I have to finish homeworks. But if there is nothing forces me to learn English, I will be less motivated." Most respondents also suggest lack of intrinsic motivation to learn English. Student 2 even admitted that he had low level of motivation to learn English. Others took an English class because it is a compulsory one at the college. Although they see the benefits of mastering English language such as getting higher salary or communicating with people from various countries, most respondents say they do not prefer autonomous learning of English where they have to be responsible of their own learning. It is because they are confused to what they should learn by themselves and prefer to be guided by teachers. The results of present study suggest that learners' motivation can be improved through MALL if students are used to learn English autonomously. It can be said that MALL might work better for independent learners. Nevertheless, the latter point needs to be investigated further in a different study which specifically analyses the effects of MALL on autonomous and non-autonomous learners.

Related to the above paragraph, teachers seem to have an important role in providing sufficient motivation for their students. Below is a comment of Student 3 regarding teachers' roles in his learning:

“[Teachers] have a lot of roles in learning English, starting from...[teaching] writing, pronunciation...in English. If there is a question from their students. [Teachers] can answer so students can understand [the lessons] better...”

The above comment suggests that Student 3 thinks teachers' roles are only limited to teaching and answering students' questions. In addition, he said that his teachers did not fully motivate him to learn English autonomously. On the other hand, Student 1 said that her English teachers have taught her to learn English autonomously. However, she commented that she needed more push or motivation from her teachers to be an autonomous learner. It can be said that majority of the respondents might be not used to learn English autonomously through MALL, making the respondents less motivated in taking parts in mobile assisted language learning like one given during the treatment. The weight of evidence suggests the importance of teachers in influencing learners' autonomy and motivation.

Related to the above paragraph, there are several reasons of the low level of learners' autonomy. Sakai *et al.* (2008) argue that in order to maintain their teachers' self-image, most East Asian students rarely challenge their teachers' pedagogy. In addition, encouraging autonomy seems to be a complex nature of language and language learning for both teachers and students, making it difficult for students to take responsibility of their own learning. Healy (1999) remarks that Western concepts such as learner self-direction and autonomous learning seems fitting perfectly to US culture in particular. Although Littlewood (1999) argued that East Asian students can develop their autonomous learning as well, Holden & Usuki (1999) countered that teacher-centred classes, which usually found in Asia, give less opportunity for students to develop their autonomy. However, the results of their study show that students prefer teachers who do not only simply transmit their knowledge, implying that it is not students' preference to be less autonomous but more educational and behavioural forms of Japanese learning that discourages autonomous learning.

In regards of the present study, being an autonomous learner can not be one that is built in few meetings but developed gradually through years. Although Indonesia has different learning system from Japan, the results of present study share a similarity in which the respondents are not used to take responsibility of their own learning or learn autonomously. For a future study, there should be a long-term investigation on how long does it take to build learners' autonomy and motivation through MALL or CALL. By investigating such topic, it will help educators and educational institutions to provide better approach in MALL or CALL. In addition, creating a suitable learning guidance or tools to help improving learners' learning achievements seems imperative in a mobile learning environment (Chu, Hwang, Tsai & Tseng, 2010). In this sense, there should be an investigation on the best approach that teachers can provide to build learners' autonomy through MALL. Such study may provide information for helping teachers or educational institutions to provide either in-service or pre-service trainings for teachers who want to integrate MALL to their lessons.

## CONCLUSION

The present study aimed to investigate the effects of MALL toward learners' autonomy and motivation due to the lack of information regarding the topic. Thus, the respondents were divided into two classes; experimental and control classes. The experimental class obtained MALL-integrated English lessons while control class was given traditional English lessons. The results were obtained by administering a set of questionnaires adapted from Taguchi, Magid, & Papi (2009) and Cotterall (1999) before and after the treatment to see the differences in the level of respondents' autonomy and motivation. In addition, semi-structured interviews were conducted to four respondents to gain better insights.

The results suggest that MALL has no impact on learners' autonomy and motivation. Nevertheless, it does not mean that MALL is not without merits as respondents suggest that they use mobile phones to look up for 'difficult' phrases or subjects. However, respondents prefer to be guided by teachers instead of being autonomous learners. The results of present study suggest that being an autonomous and motivated learner is something that needs to instilled since early stage of language learning. Thus, teachers have important roles in instilling learners' motivation and autonomy. Therefore, it seems important to provide teachers with sufficient training to help them nurturing learners' motivation and autonomy.

In spite of multiple efforts to minimize them, the present study is not one without limitations. First, the present study would gain better insights if the treatment period was longer. Second, the present study would have more diverse discussion if there were tests before and after treatment to see the effects of MALL

on learners' English skills. Third, the present study would depict the population better with more respondents. In addition, more diverse research instruments such as teacher or student journals and classroom observation might provide the present study with deeper discussions. Nevertheless, those limitations can be minimized in further studies related to the effects of MALL on learners' motivation and autonomy.

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