Attitude and social context in MALL classes: A view from midwifery learners

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Abstract

Previous studies on learning technology have focused on attitudinal dimensions and social aspects restricted to the general purpose of language classes. This obviously provides prospects for further investigation, particularly for adult learners with specific goals. Based on this rationale, this study seeks to examine the impact of Mobile Assisted Language Learning (MALL) on the attitudes and social level of the learner perspective in a Midwifery classroom. This study also explores the level of significance impact and hypothetical correlation that occurs between attitudes and social contexts. This study employs attitude questionnaires (personal, learning environment, and behavioral) and social context questionnaires (student-student relationships, formal student-instructor relationships, informal student-instructor relationships, and students as instructors). By obtaining 310 respondents who have participated in the MALL program in the Midwifery class, the data have been analyzed using the Paired Sample T-test, and Pearson Correlation Coefficient (SPSS version 25 is utilized). The results show that the learners' attitude and their level of social context achieved significant changes after the MALL class. However, the correlation between attitude and social level revealed a low correlation. However, several sub-factors in both aspects are incredibly and strongly correlated, especially in the aspects of anxiety, self-efficacy, self-regulation, and usefulness affecting aspects of both formal and informal student-instructor relationships. Suggestions are welcomed for further correlation tests at the sub-factor level on diverse subjects (different gender and field studies).

Keywords: *Attitude, social context, MALL, Midwifery Class*;

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1. Introduction

Discussions about attitudes and technology-based approaches in English learning have colored the results of research over the past decade (Tour, 2015; Stepp, 2002; Chong & Reinders, 2020; Liu et al., 2017; Atai & Dashtestani, 2013). Student attitudes play an important role in the augmentation of learning and teaching outcomes (Kormos et al., 2011). Students' attitudes can be defined as a collection of feelings or impressions concerning the use of language and its status, divided into good, bad, and neutral ones. Attitudes can maintain or hinder the learning process. Attitudes towards learning technology and its environment have influenced student learning (Ahmed, 2015). The attitude of learners can be influenced by two aspects, namely social factors and context factors. Social factors (e.g., native English speakers, peer groups and parents of students) influence students' attitudes positively. On the other hand, educational context factors such as the English teacher involved and the learning situation (e.g., classroom, seating arrangement and learning environment) negatively affect student attitudes (Getie, 2020).

In the meantime, the importance of socio-cultural issues in learning English has become a vital concern that calls for a thoughtful approach (Guryanov et al., 2019; Najjemba & Cronjé, 2020; Dongyu et al., 2013; Yaghobian et al., 2017; Chirkov, 2020). Attention needs to be drawn to this issue because, many times, language teaching and learning approaches can be overwhelmed by extreme theories that are overly theoretical instead of practical and applicable, particularly non socio-cultural modifications (S. Kim & Dorner, 2013). The important element is interaction of experienced learners with interlocutors including peers, peer community, and members of society at large. Learning becomes real and permanent when the teacher involved manages to relate to the social life of students outside the classroom. Connect meaningful language learning activities carried out in the classroom with the outside world to make the activities relatable. This goal can be enhanced by encouraging students to use mobile technology, to provide natural and authentic posits for the realization of current methodological principles of learning (Calabrich, 2016).

Optimizing the students' Internet while asking questions, students can access information thousands of times beyond their knowledge (Ziegler, 2016). For students to increasingly find ways to obtain information, navigation is necessary to identify, manipulate and evaluate information to assimilate and integrate it into life. The use of students' mobile devices has to control the learning process compared to using computers at a language laboratory (Baralt & Gómez, 2017). However, learners need to be trained adequately to integrate learning objectives optimally. In short, giving students to choose freely any materials relevant to their needs is most helpful, allowing students to choose their own learning path (Calabrich, 2016).

Research conducted into attitudes and social aspects of learners in the use of English learning technology has emphasized contribution to sustaining learning success. Moreover, the impact of using technology and MALL on English learning has also been widely investigated by practitioners and researchers (Praveen Sam & Rajan, 2013) (Alqahtani, 2020; Alemi et al., 2012; T. L. N. Tran, 2020; Hashim et al., 2017; Ummu et al., 2018; Hsu, 2013), and Ali et. Al., even believe that MALL has a tremendous impact on achievement of learning English (Ali Muhamamd M , Asad Zoobia, 2020).

To date, however, relatively few studies have explored the impact of MALL on attitudes and levels of learner's socio-context in the vocational classroom. In fact, the attitude of learners has a

significant impact on the process quality of the achievement reached by adult learners. Moreover, attention to the importance of social aspects of learning has also become a main concern in the literature so far (Najjemba & Cronjé, 2020; Kitade, 2015; Dongyu et al., 2013; Willis et al., 2013). Since the number of studies examining the relationship between the attitudes as well as the socio-level of the Midwifery learning context and the use of MALL is still limited and rare, the current study is designed to address this gap. Thus, this study aims to answer the following research questions:

1. What is the attitude of midwifery students towards MALL at English Classes?

2. What is the level of the social context of midwifery students affecting MALL at English Classes?

3. To what extent do the students' attitudes correlate with the level of the social context affecting MALL in the English Midwifery class observed?

2. Literature Review

2.1 MALL in the Language Class

Current mobile phones have many facilities, namely a camera; video and audio recorder; a map and satellite navigator; internet browsers; a diary; a calculator; a newspaper; an alarm clock; a music player; TV and radio players; a notebook; games; social media outlets; and various places to buy and sell, among many others (Isti, 2019; Chinnery, 2006; Alemi et al., 2012). To take advantage of the opportunities of these facilities, it is necessary to develop pedagogy in the proper construction, description, and continuous research conducted for language education. (Ziegler, 2016). MALL praxis gives us an opportunity to redefine our theory and practice (Jarvis, 2015).

Some studies on the use of mobile gadgets in the classroom are quite helpful, revealing that mobile learning shows a positive attitude (Ardi, 2017; Dashtestani, 2018). M-Learning is also very useful for business English and helps Japanese EFL Students with English. Even though the mobile penetration rate has skyrocketed to over 100% in some countries, students still have difficulty with the learning transfer (Hsu, 2013). It seems that m-Learning requires digital literacy of learners as a culture. Strong participation as part of culture in the context of e-Learning or m-Learning does not occur naturally. There are five types of contributory participation, depending on the pragmatic function of learner in virtual learning environment (VLE) interaction. These five categories include animators, pedagogues, provocateurs, mediators, and facilitators (Hsu, 2013). Apart from participation of learners having different styles in VLE, cultural issues have not been fully explored; e.g. participatory culture and individual participation in discussions or interactions. These issues make students have different attitudes towards m-Learning.

Learning activities in MALL are also developing including content-based and authentic tasks which are allegedly having a positive impact on language mastery (Sevy-Biloon & Chroman, 2019; Kessler et al., 2021). Contextual learning refers to content delivered to students, to help realize authentic tasks. In the context of language learning, students' attitudes towards technology are generally positive but it would be better if literacy of technological systems could be demonstrated by the instructor.

Target language proficiency in adult learning is due to interactions between instructors, students and the environment (Anwar & Wardhono, 2019). So a scaffolding process is needed,

especially through interaction and negotiation for meaning. A supportive online learning environment can improve the quality of learning through social interaction among students with MALL who are diverse from a cultural perspective (Hsu, 2013).

It is obvious that MALL from the perspective of adult learners is hardly embraced or hailed by researchers and practitioners as an alternative teaching method. This makes sense because there are still few developments of research models to support MALL as part of a learning device product.

2.2 Attitudes in MALL

Experts in the field of learning theory define attitudes in different ways, among others, attitude as a behavioral intention of the central component of human identity (Canals & Al-Rawashdeh, 2019). Attitude is seen as a state in which a person's beliefs and feelings are formed (S. Liaw & Huang, 2011a). Attitudes are part of performance, just like how they think, act, and behave. Attitude includes three important components, namely cognitive, affective and behavioral (Zulfikar et al., 2019). The first consists of beliefs and ideas or opinions about something. The second refers to one's feelings and emotions towards something, and the behavioral component refers to one's actions towards an object (Zulfikar et al., 2019). Attitude can be defined as a person's tendency to respond positively or negatively to something (ideas, objects, people, situations), therefore language learning attitudes refer to a person's tendency towards their efforts in learning a language. (S. Liaw & Huang, 2011a).

Students' attitudes are a vital, integral part of language learning pedagogy because they are believed to influence behavior and affect achievement (Zulfikar et al., 2019; T. Q. Tran & Tran, 2020; Nikitina et al., 2020). Individual attitudes depend on affective stimuli, where the affective component contributes as much as the cognitive one. Affective variables have a significant effect on the success of language learning. The characteristics of the affective domain are values, beliefs, interests, and expectations. Expectations and behavior affect students' self-image and academics (Getie, 2020).

Attitudes in technology-based learning can be seen in six aspects (Sanpanich, 2021): learning flexibility, online learning, study management, technology, online interaction, and classroom learning. First, Learning Flexibility; this includes access to learning elements: time, place, pace, learning style, content, assessment, and pathway. Access learning materials on the Web tailored to your needs (Jin Chen et al., 2004). Second, Online Learning; methods of delivering learning resources synchronously and asynchronously using network communication include computer-based learning, web-based learning, virtual classes, and digital collaboration (Al-Mubireek, 2019). Third, Study Management; the learning process is self-regulated by students to plan, manage, and direct learning activities and share learning responsibilities with their instructors (Zheng et al., 2015). Fourth, Technology; computers, Internet, and web-based programs make students more independent because they allow language practice and learning beyond the confines of the classroom. Fifth, Online Interaction; this includes student-to-student and teacher-to-student interactions in online environments with intense relational dynamics and a strong sense of social participation (Yu, 2018). Sixth, Classroom Learning; providing dynamic motivation, encouragement, and direction (Sanpanich, 2021).

The explanation above shows that studies on attitudes towards MALL yield badly mixed findings, comprising dissonance between expectations of students and teachers, aspects that are

examined, and the attitude approach used is also dissimilar. Thus, further research into learner attitudes towards MALL needs to be carried out

2.3 Social Aspects of Language Learning

Vygotskian theory views that human mental processes develop through social and collective processes (Yaghobian et al., 2017). Individuals at first always participate socially and then internalize environmental factors to be exploited as learning experiences (Dongyu et al., 2013). Thus, learning is socially constructed, which involves students through culture. Another important Vygotskian idea concerns scaffolding which views more competent individuals, collaborating with those who are less able, to reach the Zone of Proximal Development (ZPD). Although students are able to reinforce each other to achieve higher levels of performance, not all peer-peer interactions are regarded as conducive to learning (Joanna Chen, 2016).

Socio-cultural theory has the potential to form new context-oriented language teaching and learning pedagogy that can help teachers maximize teaching and learning effectiveness (Hughes, 2021). The socio-cultural component has even been proven as a success factor in virtual communication. Lack of socio-cultural competence results in communication failure because there are many socio-cultural traps that students find difficult to avoid (Pavlovskaya & Lord, 2018). Vygotsky's socio-cultural theory helps improve students' language skills and develop students' cognition (Guryanov et al., 2019). A lot of student communication with each other through scaffolding has promoted student-centered learning, to build learning autonomy (Hameed & Ansari, Sanaullah, Ansari, 2016). Pragmatically, experiential learning helps improve understanding of language learning in other contexts. Effective education must help students associate theoretical or abstract knowledge with concrete activities (Hameed & Ansari, Sanaullah, Ansari, 2016).

This section shows that the socio-cultural aspect has great potential to be developed and realized in learning, but many practitioners and language teachers still pay insufficient attention to it. As a result, a more massive push is needed to drive home the importance of this aspect through research and development of language learning from time to time, one of which is developing social context as a pillar of this socio-cultural aspect.

Based on the above review, the use of online-based learning technology has been vast at universities for academic and research purposes since the beginning of COVID-19 (Gufron & Rosli, 2021). However, serious research on the use of mobile learning in relation to adult student attitudes and their impacts on the level of social context is scarcely appreciated, especially in vocational contexts.

Adult learners at university have been made familiar with language teaching through English for Academic Purposes (EAP), essentially to gain cognitive, social, and linguistic requirements as specific academic fields (Atai & Dashtestani, 2013). However, teaching EAP in Indonesia is still restricted to reading various English texts (text-centered and exam-oriented only), lack of interactive teaching strategies. MALL is not yet considered a potential resource to enhance learning skills and strategies. Thus, responding to the remarkably insufficient amount of research to examine the attitudes of students towards MALL and its impact on social context of learning, this study serves to examine participants' attitudes about the actual use of MALL and both its challenges and limitations in their social context.

3. Research Method

3.1 Participants

The respondents in this study amounted to 310 females whose age range is 19 to 21 years. Most of these Midwifery students live in rural and urban areas in Surabaya, Madura, Gresik, and Sidoarjo. Their mother tongues are the vernacular languages of Javanese and Madurese, and their second language is the national language, Indonesian. In fact, there are 450 midwifery students who have received MALL lessons on their respective campuses. However, after the online questionnaire had been distributed, it turned out that those who completed and returned it both at stage 1 and stage 2 were 310 respondents, so there were 140 people who had not filled in the answers of the questionnaire. The next stage was to interview several subjects to acquire more in-depth information about attitudes, and the level of their social context, and also why and how these variables are related.

3.2 Research Design

The purpose of this study is to explore the attitudes and social relations of students of English for Midwifery after the implementation of MALL learning. Since the data are numerical and the interviews descriptive in nature, this study applies the mixed method (consisting of a cross-sectional survey and qualitative research design).

MALL learning has been implemented in three Midwifery departments in Gresik, Surabaya, and Sidoarjo. Learning in this technological era helps students freely decide their own plan, based on their expectancies, namely (1) face-to-face lectures in class only, (2) through synchronous online classes via video conferencing, (3) within online materials through blending between recordings, face-to-face, and synchronous online classes or sessions. The combination of this hybrid learning (face-to-face and online) and the students' goal is called "Hyflex" (hybrid and flexible) (Mackh, 2021).

Students use LMS (www.spada.umg.ac.id), which can be accessed via a smartphone, by the following procedures: (1) Students take attendance at the LMS, then download the material, to subsequently join the forum or blue-button (conference meetings). The teacher guides the pre-activity stage, namely providing input (in the shape of listening, reading, speaking, and writing skills) in the form of certain situations. Students are given opening questions and hold a dialogue together. (2) Next, they join the pre-activity phase of the Whilst-activity where students discuss and complete exercises are provided, and then present their output through LMS. (3) Post-activity activities, namely solving cases and discussing particular themes, recording and uploading *YouTube* links. These activities can be prolonged as homework. The teacher asks each student to download another student's YouTube link and comment on the forum link in the LMS. The teacher and students subsequently provide feedback through the forum link. This MALL learning activity has been run for one Odd Semester (Semester I) from 2021 to 2022.

3.3 Research Method and Procedures

The instrument used in this study consists of two parts, namely statements about attitudes and statements about social contexts. Part one, the attitude questionnaire, adapts a study that includes three areas (S. S. Liaw & Huang, 2015), namely personal (self-efficacy, anxiety, and self-

regulation), learning environment (ease of use, usefulness, and social interaction), and behavioral (behavioral acceptance). The second part is the questionnaire about social context adapted from Walker & Baepler which includes student-student relationships, student-instructor (formal), student-instructor (informal), and students as teachers (Walker & Baepler, 2017) . The attitude questionnaire is organized into 21 statements, while the social context consists of 26 statement items. All statement items (47 items) are arranged using 5 scales (1-5) namely strongly disagree (1), disagree (2), neutral (3), agree (4), and strongly agree (5). To ensure its validity, this instrument has also been tested on 30 students. The results of the analysis of each item are as follows; the lowest score of 47 items is .67 and the highest Pearson score is .852, so the average Pearson score is .630. This shows that the Pearson correlation number is above 0.5, thus all items have shown sufficient validity. Furthermore, this questionnaire has been tested for reliability by the Cronbach Alfa reliability test whose results show 0.896, which indicates reliability. This questionnaire was distributed twice, the first was before the implementation of MALL, and the second one after the implementation of MALL.

After the data have been collected through the questionnaires, the next step is to analyze in three steps, namely; first, to calculate the data by descriptive statistics (median, mean, and average) on two questionnaire results to see the level of perception and social context, then to test the significance of the paired sample T test between the scores on the questionnaire in period 1 (before the implementation of MALL) and in period 2 (after the implementation of MALL); second, to apply the Pearson correlation test by looking at each factor to examine the relationship with one another (using SPSS version 25); the third stage is to analyze the correlation of sub-factors in attitudes and sub-factors in their social context, to see which sub-factors have the strongest and most positive relationship with each other, both in terms of quality and quantity.

4. Results and Discussion

4.1 Results

4.1.1 RQ1: What is the attitude of midwifery learners towards MALL?

To answer this research question, the researchers used a questionnaire about attitudes which explored six factors, namely self-efficacy, anxiety, self-regulation, usefulness, social interaction, and behavioral acceptance. Table 2 describes the findings of these factors, both before and after MALL learning. The data for the six factors were taken from the accumulation of the dominant answers agree (4) and strongly agree (5) on the Likert scale (from 1-5).

Table 2. Results of Attitude

Items	Item Loadings	
	Before	After
Self Efficacy		
I am confident to take the English program in Midwifery	.70	.91
I'm confident in the Midwifery English class	.70	.92
I am confident about completing assignments in the Midwifery English program	.64	.90
Anxiety		
I have no difficulty following the English program	.52	.60

I don't feel anxious when doing English assignments	.56	.65
I don't think studying English is complicated	.59	.69
Self Regulation		
Learning English encourages individuals to learn	.60	.73
Learning English activates individual learning	.55	.74
The English steps help me study	.54	.73
The English learning procedure is easy to follow	.55	.72
Usefulness		
The English program is very useful	.45	.77
The process of learning English is interactive	.53	.61
The English learning program improves my learning	.49	.67
I optimize existing learning resources	.54	.69
Social interaction		
The English program enhances social learning.	.50	.78
The English program improves social interaction.	.47	.77
The English program encourages social sharing	.56	.74
Behavioral Acceptance		
The English program increases enthusiasm for learning.	.58	.74
The English program improves my performance.	.60	.75
The English program satisfies my learning.	.54	.77
The English program pleases me.	.50	.78
Average	**.55**	**.74**

Table 2 shows that the results of each factor are in satisfactory stance with the average finding of 55% before the implementation of MALL, to 74.5% after its implementation in the classroom. While the findings of each factor show diversity of increases where the difference in the number of self-efficacies is 23% (from 68% to 91%), anxiety 9% (from 55.6% to 64.6%), self-regulation 17% (from 56% to 73%), usefulness 18.3% (from 50.2% to 68.5%), social interaction 25.35% (from 51% to 76.3%), and behavioral acceptance 20.3% (from 55 .4% to 75.7%). Thus, the rate of change (from the largest to the smallest, sequentially) is social interaction (25.35%), self-efficacy (23%), behavioral acceptance (20.3%), usefulness (18.3%), self-regulation (17%), and finally, anxiety (9%). To determine whether the change is significant or not, a different test is carried out using the paired sample T-Test. The result shows that the significance number (2 tailed) is .000, meaning that there is a significant change in attitude between before and after the implementation of MALL. The data above shows that respondents have a good attitude towards the application of MALL in the Midwifery class. In other words, MALL learning in the Midwifery class has an impact on increasing student attitudes significantly. The biggest changes in student attitudes occurred in social interaction, self-efficacy, behavioral acceptance, usefulness, and self-regulation. Meanwhile, the anxiety aspect has a small chance of change, namely 9%. This means that anxiety needs to receive serious attention in every learning process, both using MALL and non-platform devices.

4.1.2 RQ2: *What is the level of the social context of Midwifery students affecting MALL?*

To answer this question, the data have been taken from the second questionnaire which explores Social Context into four factors, namely student-student relationships in general, formal

student-instructor relationships, informal student-instructor relationships, and students as teachers. Table 3 presents the results for each of these factors including the sub-factors that exist within each factor.

Table 3. Results of Social Context

No	Items	Item Loadings	
		Before	After
	Factor 1: General Student-Student Relations		
	I learned something from my classmate.	.61	.87
	Students help each other with studying materials.	.55	.82
	Friends work together when completing classwork, responding to questions, and other learning activities.	.67	.88
	I know the personalities of my closest friends in class.	.66	.84
	I am comfortable asking friends for help	.62	.83
	I know students near me	.63	.90
	I often discuss learning materials with friends.	.65	.82
	Friends respect my opinion.	.65	.87
	Some friends point out good learning resources	.66	.81
	Some friends were able to explain the material to me	.55	.84
	Factor 2: Student-Instructor, Formal Relations		
	The exam material has been discussed previously in class	.55	.80
	The teacher amuses the class	.55	.91
	The teacher encourages performing the task well	.57	.92
	Teachers are like learning partners in the classroom	.60	.83
	The teacher encourages students to comment and ask questions	.62	.88
	Factor 3: Student-teacher, Informal Relations		
	The teacher recognizes my name	.50	.76
	The teacher knows me	.55	.80
	I know the teacher well	.78	.91
	I have informal discussions with the teacher before, during, and after class.	.62	.86
	Factor 4: Students as Teachers		
	I am able to explain certain terms through my ideas.	.65	.86
	Friends can learn something from me	.66	.77
	I am able to explain new concepts to friends	.65	.91
	I am able to convince why my idea is relevant to friends	.60	.88
	I am able to use terms correctly.	.62	.89
	I am able to explain my ideas completely to my friends in class	.65	.89
	I can help friends to study	.66	.88
	Average	**.62**	**.85**

Table 3 shows changes in the level of social context before implementation (62%) to after MALL implementation (85%). In detail, the value of changes in each factor shows variety where the difference in value of changes of student-student relationships is 22.3% (from .625 to .848), formal student-teacher relationships 29% (from .578 to .868), informal relationships of student-teacher 22% (from .6125 to .8325), and students as teachers 22.7% (from .641 to .868). Of the four factors, the formal student-teacher relationship occupied the highest change (29%), while the other three had similar results; students as teachers 22.7%, student-student relationship 22.3%, and student-teacher of informal relationship by 22%. To ensure that the change has significance or not, the result of the paired sample test shows a significant change before and after the implementation of MALL with the value of Sig (2 tailed) amounting to .000. Thus, these data indicate that the value of social context is not only adequate and excellent (concerning four factors), but is also significant. In other words, the implementation of MALL in the Midwifery class has a significant and positive impact on changes in the social context of student learning.

4.1.3 RQ3: To what extent do students' attitudes correlate with the social context affecting MALL in an EAP class?

To answer this question, the researchers conducted two correlation tests, namely the first to test the correlation between scores of attitudes and social context, and secondly to test the correlation between results of sub-factors concerning attitudes and social context. These two correlations use the Pearson Product Moment Correlation Coefficient which is then processed using SPSS version 25. The description of the findings about the correlation between the results of attitude scores and social context can be found in Table 4.

Table 4. Correlation between Attitude and Social Context

		Attitudes	Social context
Attitudes	Pearson Correlation	1	.265
	Sig. (2-tailed)		.245
	N	21	21
Social context	Pearson Correlation	.265	1
	Sig. (2-tailed)	.245	
	N	21	26

Table 4 shows the Pearson correlation value of .265 with a significance value of .245, meaning that, in general, attitudes and social context values do not have a strong correlation, tend to be weak, and not significant. These results mean that high learner attitudes towards MALL in Midwifery classes do not necessarily make an impact and are not directly correlated to increasing levels of social context. The other way around, the high value of social context correspondingly cannot be determined to guarantee the increase of learning attitudes. Next, the data on correlation between attitude and social context of sub-factors are depicted in Table 5.

Table 5. Correlation between Attitude and Social Context Factors

		SE	A	SR	U	SI	BA	S-S	FS-I
A	Correlation	.895[**]							
	Sig.(2-tailed)	.000							
SR	Correlation	.837[**]	.818[**]						

	Sig.(2-tailed)	.000	.000						
U	Correlation	.876**	.849**	.978**					
	Sig.(2-tailed)	.000	.000	.000					
SI	Correlation	.937**	.938**	.838**	.853**				
	Sig. (2-tailed)	.000	.000	.000	.000				
BA	Correlation	.856**	.861**	.977**	.982**	.881**			
	Sig.(2-tailed)	.000	.000	.000	.000	.000			
S-S	Correlation	-.031	.210	.215	.249	.183	.290		
	Sig.(2-tailed)	.913	.452	.363	.290	.514	.215		
FS-I	Correlation	.724**	.798**	.802**	.877**	.753**	.872**	.572**	
	Sig.(2-tailed)	.002	.000	.000	.000	.001	.000	.003	
IS-I	Correlation	.713**	.812**	.743**	.804**	.801**	.841**	.370	.868**
	Sig. (2-tailed)	.003	.000	.000	.000	.000	.000	.108	.000
SL-I	Correlation	-.532*	-.433	.223	.183	-.487	.209	.751**	.403*
	Sig.(2-tailed)	.041	.107	.345	.441	.066	.376	.000	.046

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

*. Correlation is significant at the 0.05 level (2-tailed).

The data in Table 5 show interesting findings where, although in general, scores of attitudes and social context factor are not strongly correlated, but the sub-factor correlation shows dissimilar findings. Some strong correlations have occurred between those sub-factors; (1) self-efficacy is strongly and positively correlated with anxiety (.895), self-regulation (.837), student interaction (.937), behavioral acceptance (.856), and with formal student-teacher interaction (.724); (2) anxiety has a strong and positive correlation with self-regulation (.818), usefulness (.849), student interaction (.938), behavioral acceptance (.861), formal student-teacher interaction (.798), and informal student-teacher interaction (.812); (3) self-regulation has a strong and positive correlation with usefulness (.978), student interaction (.977), formal student-teacher interaction (.802), and informal student teacher-interaction (.743); (4) usefulness has a strong and positive correlation with student interaction (.853), behavioral acceptance (.982), formal student-teacher interaction (.877), and informal student-teacher interaction (.804); (5) student interaction has a strong and positive correlation with behavioral acceptance (.881), formal student-teacher interaction (.753), and informal student-teacher interaction (.801); (6) behavioral acceptance has a strong and positive correlation with formal student-teacher interaction (.872), and informal student-teacher interaction (.841); (7) student-student interaction has a strong and positive correlation with formal student-teacher interaction (.572), and student as teacher (.751); (8) formal student-teacher interaction has a strong and positive correlation with informal student-teacher interaction (.868).

To fathom and establish the depth of the findings, furthermore, interviews were conducted on several subjects. These interviews reflect two broad themes: individual's feelings about attitudes and social contexts, and why and how the two are related.

First, a student comments on opportunities to increase confidence, self-regulation, and interaction. For example, the student notes that MALL learning "builds confidence to learn and then has impact on peer-to-peer interactions, particularly when they need each other's help. So, [the] attitude of acceptance among students grows. Likewise, students do not hesitate to ask to [the]

teacher if they are not fluent to operate MALL, and students are still open to asking other things." The second student argues about anxiety, where "the feeling of doubts appears repeatedly, when I start learning, I am too worried about technical issues, namely Wi-Fi, cellphone batteries, etc., when learning is running, I am worried and reluctant to ask the teacher about materials that have not been completed, and [reach out] to peers when they have not mastered certain themes. However, after the second meeting onwards, this feeling of anxiety gradually diminished, because I felt more comfortable" further stating that "I feel… I have benefited a lot from implementing MALL in this class. Especially when the lecture hours coincide with my working hours." The third student explains about learning interactions where this activity "increases my concern to friends and reduces my apathy because I can't bear to see friends who understand neither technical nor comprehension issues" lending a helping hand to friends", "I like to serve when friends need me". There are also students who describe reasons why they are accepted by their peers: "My enthusiasm for learning increases when I am able to explain to my friends ... the more I like it".

In a nutshell, anxiety is one of sub-factors with the strongest impact on others, followed by self-efficacy, and self-regulation. Thus, the relationship between attitudes and social context level occurs at restricted capacity, that is to say exclusively in formal and informal student-teacher variables, which are convincingly aligned with anxiety, self-efficacy, self-regulation, and behavioral acceptance.

5. Discussion

On the point of learner attitude, this study corroborates previous findings (S. Liaw & Huang, 2011b; S. S. Liaw & Huang, 2015; Zulfikar et al., 2019), where the data show a strong relationship between MALL and student attitudes. Likewise, on the point of social context, this study complements other findings (S. S. Liaw & Huang, 2015; Liem et al., 2012), namely that social context can also be stimulated by using MALL. Based on the examination of factor analysis of each element, it proves that attitudes do not have strong relationship with the social level of student context, but anxiety contributes greatly to other elements in attitudes and in social context. Thus, this study not only strengthens previous findings but also contributes new information about the emergence of a strong relationship with the roles that anxiety, self-efficacy, and self-regulation play in the quality of student-student, and student-teacher interactions (both formal and informal), as part of the social context in the MALL class.

Pertaining to the first question, regarding positive and significant changes in attitude towards the application of MALL in the Midwifery class, referring to sub-factors used, positive and major changes occurred in self-efficacy, behavioral acceptance, usefulness, and self-regulation, and this information complements existing studies (Zulfikar et al., 2019). Meanwhile, even though there was significant change in students' attitudes, it was clear that anxiety still deserves serious attention because the decrease in anxiety was still small compared to the previous four sub-factors. In general, these findings prove the highly important role of attitude in language learning where one's feelings can shape positive behavior towards learning (Ayres, 2002). This study also supports five characteristics of attitudes in learning a second language: (i) Cognitive (thought) and affective (perceived), (ii) Dimensional, (iii) Acting in a certain way, (iv) Learnable, not inherited, (v) Attitudes tend to remain, but are influenced by experience (Getie, 2020).

Several other studies suggest that students' learning attitudes are measured in three areas: improvement in cognitive reading skills and strategies, their autonomy and motivation (Atai & Dashtestani, 2013). Although the sub-factors used were slightly different, these findings contributed greatly to the improvement of cognitive strategies from both bottom-up and top-down categories. This study adds to other findings about student-centered online learning, which is one of the most effective ways to improve academic performance, motivation, and autonomy of language learners. (Thang & Bidmeshki, 2010).

Pertaining to the second question, the level of the social context of students undergoes a significant and even increase in four sub-factors, namely the increase in quality of formal student-teacher relationships, students as teachers, student-student relationships, and informal student-teacher relationships. The improvement of social relations in the context of student-student and student-teacher formally and informally reinforces the importance of learning experience as part of learning participation to improve students' mentality through collective of social processes (Yaghobian et al., 2017); (Dongyu et al., 2013). This study proves the social quality of students to improve higher learning performance where in fact cognition develops, one of which is because of the interaction factor (Hameed & Ansari, Sanaullah, Ansari, 2016). Thus, this study supports previous findings about the importance of students' interaction and communication with each other (Hughes, 2021).

The MALL character, which has a communicative base with diverse tasks, is embodied by teaching *through* communication and not by teaching *for* communication (González-lloret, 2017b). The design of task activities, which is based on MALL in this fashion, applies four criteria, namely focusing on meaning, gaps, maximum utilization of linguistic and non-linguistic sources, and language output. (Jarvis & Krashen, 2014). By attaching these four criteria to MALL, it provides opportunities to increase the quality of the social context of students. Therefore, student-student and student-teacher relationships formally and informally occur with considerable intensity. It must be taken into consideration that all MALL features aim to consciously learn language through mobile devices without limiting time and social functions, both formal and non-formal (Jarvis & Krashen, 2014).

Regarding the third question, attitudes are weakly correlated with the social level of the context of female learners (in this case, Midwifery students). This finding confirms that there is no direct link between attitudes and social context, or an increase in the level of students' social context does not warrant an increase in learner attitudes. With limited previous studies on this issue, further evidence is needed based on subjects with more variety of genders being observed. However, there is a potential for students' social interactions to provide good learning experience so that students' attitudes and understanding of language learning also increase (Hameed & Ansari, Sanaullah, Ansari, 2016).

This study presents other potentials, namely the strong correlation of sub-factors attitudes, namely anxiety, self-efficacy, self-regulation and usefulness with improving the social context through student-instructor relationships, both formally and informally. It is evident that an increase in the level of social context, especially in formal and non-formal student-instructor relationships, has a strong potential to occur if students are able to develop strong attitudes, particularly through these four sub-factors. This new finding about the correlation between sub-factors of attitude and social

context is sufficiently stimulating to be followed up by subsequent research, especially to see the consistency of correlation level in different subjects.

6. Conclusion

This study provides evidence of MALL contribution to increasing the quality of learners' attitudes and the level of their social context, neither of which has ever been checked by previous researchers regarding the use of MALL in Midwifery classes. The use of MALL in this context has a significant effect on improving the quality of learning attitudes and increasing the social context of the learner.

Furthermore, attitudes in MALL learners are not strongly correlated with the social context level of the student's Midwifery. However, attitudinal sub-factors such as anxiety, self-efficacy, and self-regulation contribute significantly to formal and informal student-teacher interactions (where the latter two sub-factors are part of the social context factor). Of the five existing attitude factors, anxiety is the sub-factor that correlates most with other sub-factors. Thus, this study emphasizes the significance of showing consideration for anxiety issues (as part of the attitude factor) to be managed properly by EAP teachers because it can have an impact on disrupting the social context level of the learner.

The shift in learning by optimizing MALL in the Midwifery class (which is dominated by adult female learners), is evidence of the positive opportunity to improve quality of learning, where low attitudes of adults that have been disrupting the learning process can be reduced. This study also confirms that MALL does not need to be viewed as a passive platform, but rather as an active one that can be easily controlled to develop the social context of students. This convenience is felt because students can optimize this MALL anytime and anywhere flexibly and quickly.

This research is obviously limited as it is restricted to female respondents of midwifery students. Therefore, the researchers hope that there will be further testing of the impact of applying MALL on other subjects representing different genders and different fields of science (exact and social sciences), and correspondingly proving the interrelationships of sub-factors between attitude and social context in order to obtain consistent results (by using the longitudinal approach, among others.

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