Factors Affecting Services for Computer Assisted Learning In a Remote Area: Analysis of Structural Equation Modeling

Khoirul Anwar, Slamet Asari, Nur Fuziyah, Yudhi Arifani, Sri Suryanti

Abstract: Students in remote areas need to obtain adequate educational services including the use of computer technology to enhance effective and quality of learning process. This study aimed to analyse students' perception towards computer-assisted learning services at some high schools with restricted learning technology in an isolated area. Particularly, it emphasized to find the influence of teacher behaviour, credibility, communication, and accessibility to the use of computer assisted learning. A five-Liker scale of service indicators containing 15 items within four dimensions, namely teacher behaviour, credibility, communication, and accessibility was administered to 117 respondents. A structural equation modelling was applied to analyse the data. The results illustrated that teacher behaviour (1.00), credibility (1.00), and communication (1.00) were perceived to be the most influential factor affecting compared to the teacher service of accessibility (0.74) on computer-assisted learning. This research proved that basic education service was a competent teacher with adaptable behaviour, credible, and upright communication. Accordingly, for the learners who were not yet fully literate in technology, the role of teachers became highly prominent in constituting respectable, credible, and communicative behaviour on the use of computer-assisted learning. Further research is recommended to address other potential areas to ensure other influential control of those four facets.

Key words: perception, computer assisted technology, learning services

I. INTRODUCTION

The development of computer technology has turned out to be a necessity in the world of education recently as evidenced by the proliferation of computer-assisted learning services which have indeed become an important pillar to achieve better quality of education (Anwar & Arifani, 2016). For students in urban areas which are in fact close and easy access to government and public services, the use of computers in education may be habitual for most students in learning directly and indirectly (Anwar & Husniah, 2016). Unlikely for those who are in rural areas, even at more remote places which are far from easy access to the use of computer services, may be they are less accustomed and needed strong mentoring and encouragement to increase awareness of the importance of computer-assisted learning to facilitate and accelerate the process of transfer of knowledge in learning (Anwar, Asmara, & Muhammad, 2016). To realize these objectives, an initial mapping of student perceptions is needed to understand the importance of teacher services in terms of behavior, credibility, communication, and accessibility to computer-assisted learning. Identification of student perceptions is important to know in order to ascertain the range of needs between students and teachers in learning, especially on computer-assisted and how to meet and shorten the distance between the teacher's and student's wants, especially in four aspects namely teacher behavior, credibility, communication, and accessibility.

II. LITERATURE REVIEW

Teacher behavior is generally identical to the attitude of professionalism in carrying out the mandate of being a teacher who meets the criteria including behavior related to pedagogic, personality, social, and professional attitudes in optimizing the learning process (Harmer, 2002). Teacher's pedagogic competence is often associated with attitudes shown in the ability to educate, teacher's personality is related to maturity in encouraging students to learn, social competence is a social glue between students and teachers, and professional attitudes shown in the ability to manage learning (Oz, 2015). Teacher credibility can be interpreted as a teacher who can be trusted, has expertise, and shows his/her own attractiveness. A teacher who can be trusted is able and willing to provide all information needed in learning both relating to science and services available at school for the benefit of each student. The second aspect of credibility is to show the ability to overcome every learning problem formally or informally.

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While the attraction is the personal teacher who is comfortable and safe when invited to communicate with students and able to maintain good interaction (Bouchefra & Baghoussi, 2017). Credibility is the attitude of a communicator to the source of communication carried out at a certain time or the extent to which the source of information is considered reliable.

Teacher credibility is one of the important factors that influence the relationship between teachers and students and also affects student motivation and learning.

Teacher credibility has a large influence on the perceptions and information students receive as the main source in the class (Pishghadam, Makiabadi, & Mohtasham, 2018). There are many factors that can affect credibility, including attractiveness, sexual orientation, the instructor age and misbehavior (Boer & Bordoloi, 2018). Credibility is measured by a three-dimensional scale of teacher credibility which includes competency, trust and perceived concern. Competency is defined as perceived knowledge or expertise that a teacher applies to his ability to teach, trust is calculated to what extent a teacher is considered by his students as an honest person, and the perceived concern means students' perceptions of their teacher in terms of how much he acknowledges values, their welfare and interests. A number of variables such as the use of technology, the age and behavior of the instructor, and the proximity of nonverbal teachers have been identified related to the perception of teacher credibility. Among them are older teachers who are considered more credible than the younger ones, as well as offensive teachers who are seen as more credible than lazy and incompetent teachers. Students receive more effective learning and motivation when they are taught by highly progressive and very credible teachers (Pishghadam, Makiabadi, & Mohtasham, 2018).The next service feature is teacher communication in optimizing the learning process by having communication behavior that can connect students' interests to school or vice versa, and able to provide alternative choices for each student to develop more (Kasap, 2005; Aghajani & Zoghipour, 2018). A good connector is a teacher who understands students' needs in learning and ensures the availability of learning services in schools as to be maximized by students so that they can provide space or learning choices that make it easier for students to develop. Maybe the role of the teacher as a liaison or facilitator is sometimes not optimal because the teachers' burden of assignments in class often yields more time and greater energy so that they have less attention to other things outside teaching such as mentoring students to still bridge the interests of schools, even students and parents are often overlooked (Suwantarathip & Orawiwatnakul, 2015). Teachers must prioritize the material they handle to ensure the learning objectives are achieved. They must also focus on determining the right activities of students and building their communication, how to work interdependently, and increase their independence. Effective instructors use special praise, reinforcements, and constructive feedback to give students a thorough understanding of a topic (Paolini1, 2015). A teacher does not only have to be smart but also must be able to communicate well, especially in providing guidance to students that greatly determines the success and motivation of their learning (Ismail & Idris, 2009).The last feature of service is the role of the teacher in accessibility that is internal and external in the school environment. Optimizing internal access must be related to opportunities for access to the existing schools in optimizing the individual role of students during the learning process (Tayan, 2017; Branden, 2006). Internal school access is certainly related to the utilization of all school facilities; classrooms, libraries, laboratories, playgrounds, sports facilities etc. External accessibility is certainly far wider, including facilities outside of school that can be optimized for the growth of the quality of student learning, including activities outside of school, extracurricular activities, student scientific writing competitions, scouting, access to related offices in supporting learning etc. All teacher services in the four features above illustrate their attitudes towards their responsibilities during the learning process, especially in computer-assisted learning for students in a remote area. Students as users of service quality in schools must comprehend the teacher's contribution in optimizing the role to organize the computer-assisted learning process. Therefore this study aims to identify the relationship between teacher attitudes, credibility, communication, and accessibility to computer-assisted learning services being initiated. The rapid growth of education providers implementing computer-assisted learning in all schools shows an increased quality awareness in managing learning. Of course there will be a healthy competition in providing the best service to students to knowingly expect the best learning services. Again for areas which are already established and often exposed to computer technology may not be a problem, but for areas with limited access (remote islands) need attention and assistance to identify factors that can help the successful implementation of computer-assisted learning in its typical patterns. Moreover, schools in those area have little experience in managing the quality of routine learning, to let alone burdened by computer optimization challenges. This research helps to identify the typical patterns that must be raised so that the computer-assisted learning model is successful and can improve student learning achievement. At least there will be a clear link between four aspects: teacher behavior, credibility, communication, and accessibility to computer-assisted learning services (Kasap, 2005; Suwantarathip & Orawiwatnakul, 2015). Clarity of the relationship between these four aspects is paramount as an entry point to determine a typical computer-assisted learning model that reflects the needs of students from remote island regions. Further impacts or important outcomes in the computer-assisted learning process for the remote areas for example are to have; a proper and significant understanding of computer assisted learning in schools, will power of the best quality and competence of teachers in carrying out computer assisted learning, the best design for computer-assisted learning process, a typical model of computer-assisted learning activities with their right teacher's role.

These four additional outcomes are very crucial to be considered especially the ones who have insufficient experience in implementing computer-assisted learning. All those very promising benefits mentioned above will certainly not be possible if the teacher's role does not function optimally since the common character of students at high school level is very dependent on teacher's role.

The question is, of the four aspects of the teacher's roles namely; behavior, credibility, communication, and accessibility, which is the most needed by students to help maximize the application of computer assisted learning in special area in Indonesia. Studies that lead to answers to the question can be ascertained as not yet available and not found in previous literatures. As a result, this research does not merely address the current problems but also helps anticipate future challenges in the area, especially the implementation model of computer-assisted learning. Thus, the objective of this study is initiated to identify determinants factors contributes the service of computer-assisted learning in remote schools.

This study aimed to identify the determinants of computer-assisted learning services in four aspects, namely teacher behavior, credibility, communication, and accessibility, especially in learning English and Mathematics, resulting in a causal structure model among these variables. Thus this research model employed a correlation model which function was to identify predictions of interrelationships between influential variables so that the relationship and the influence between these variables could be seen (Tjokrosujoso, 1995; Sugiono, 2014; Arikunto, 2000; Lambert & Lambert, 2012; Ary, Jacobs, Sorensen, & Razavieh, 2010; Best & Kahn, 1998; Brata, 2008; Gall, 2003). This research instrument was modified from a service indicator that had been developed by Renganathan, Balachandran, and Govindarajan (2012), of course based also on the Law on Teachers and lecturers No. 14 of 2005. This questionnaire was divided into 15 (fifteen) items in which the aspect of teacher behavior contained four items, credibility of two items, communication of two items, and accessibility of six items. Respondents were asked to fill in the items by giving preferences of using Likert scale of 5-1, in which 5 showed the statement of strongly agree and 1 for the statement of strongly disagree. The results of the validity analysis could be seen in table 1 and the reliability results were illustrated in table 2.

III. METHODOLOGY

A. Data Collection

Table 1. Validity Analysis

		Total
Pedagogic competence	Pearson Correlation	.555**
	Sig. (2-tailed)	.000
	N	117
Personality competence	Pearson Correlation	.969**
	Sig. (2-tailed)	.000
	N	117
Social competence	Pearson Correlation	.969**
	Sig. (2-tailed)	.000
	N	117
Professional competence	Pearson Correlation	.969**
	Sig. (2-tailed)	.000
	N	117
Can be trusted, have expertise	Pearson Correlation	.946**
	Sig. (2-tailed)	.000
	N	117
Ability to overcome problems	Pearson Correlation	.969**
	Sig. (2-tailed)	.000
	N	117
Ability as a liaison or facilitator	Pearson Correlation	.658**
	Sig. (2-tailed)	.000
	N	117
Ability to provide alternative choices	Pearson Correlation	.643**
	Sig. (2-tailed)	.000
	N	117
Ability to provide student assistance	Pearson Correlation	.951**
	Sig. (2-tailed)	.000
	N	117
Computer access at classroom	Pearson Correlation	.922**
	Sig. (2-tailed)	.000

	N	117
Computer access in Library	Pearson Correlation	.946**
	Sig. (2-tailed)	.000
	N	117
Computer access at Laboratory	Pearson Correlation	.940**
	Sig. (2-tailed)	.000
	N	117
Wifi Access at school	Pearson Correlation	.943**
	Sig. (2-tailed)	.000
	N	117
Access to sports facilities	Pearson Correlation	.930**
	Sig. (2-tailed)	.000
	N	117
Access activities outside of school	Pearson Correlation	.925**
	Sig. (2-tailed)	.000
	N	117
Total	Pearson Correlation	1
	Sig. (2-tailed)	
	N	117

Table 1 above showed that each item had a Pearson correlation value above 0.4, meaning that all items had a definite and adequate level of validity and had the feasibility to be used as instruments in this study. Furthermore, the questionnaire items was also been analyzed for the reliability level as in Table 2.

Table 2 above explained the results of the overall reliability calculation of items that show the value of Cronbach's Alpha 0.973, which meant that this instrument also met the rules of reliability because the value was greater than 0.4. While the results of reliability analysis for each item was clearly described in Table 3.

Table 2, Reliability Analysis

Reliability Statistics	
Cronbach's Alpha	N of Items
.973	15

Table 3, Reliability of each item

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Pedagogic competence	60.5128	42.166	.479	.979
Personality competence	60.3504	40.850	.964	.969
Social competence	60.3504	40.850	.964	.969
Professional competence	60.3504	40.850	.964	.969
Can be trusted, have expertise	60.3590	40.818	.938	.969
Ability to overcome problems	60.3504	40.850	.964	.969
Ability as a liaison or facilitator	60.0171	42.862	.617	.974
Ability to provide alternative choices	60.6838	40.356	.564	.980
Ability to provide student assistance	60.3590	40.784	.944	.969
Computer access at classroom	60.3761	40.650	.910	.970
Computer access in Library	60.3675	40.648	.937	.969
Computer access at Laboratory	60.3761	40.530	.930	.969
Wifi Access at school	60.3675	40.665	.934	.969
Access to sports facilities	60.3761	40.599	.918	.970
Access activities outside of school	60.3761	40.633	.913	.970

Table 3 above illustrated that the reliability analysis of each item had shown the value of Cronbach's Alpha above 0.4 where each had shown the achievability of reliability of the questionnaire and could be used to retrieve data in this study.

B. Sample

All respondents were originated from remote area senior and vocational high schools in Bawean Island, Gresik Indonesia. The number of distributed questionnaire were 130 copies with 117 questionnaires were submitted to the researcher.

IV. DATA ANALYSIS

Data was collected and analyzed using a LISREL software, reliability analysis was also completed first and then followed by factor analysis to explain the quality of computer-assisted learning services in remote areas. Structural Equation Modeling (SEM) was applied for data analysis to define the determinants and structure models (Muijs, 2004; Lambert & Lambert, 2012).
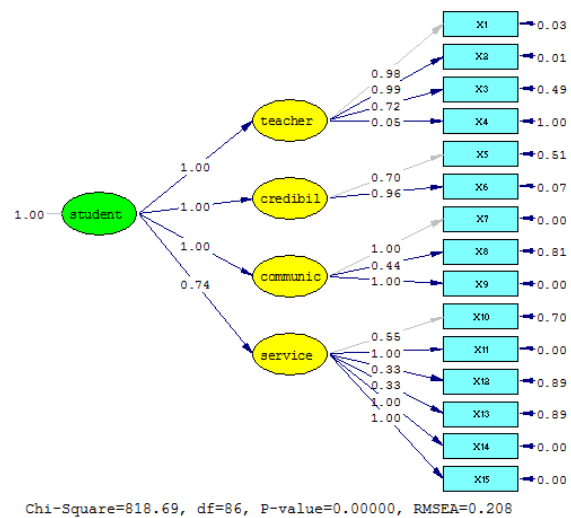
V. RESULT

Before addressing the question of how students' perceptions of teacher competency, teacher credibility, communication skills and accessibility of service, researchers tested the validity of the model using LISREL 9.1. The results of the base estimation model between students' perceptions of the four variables and each parameter were sequentially presented below.

The researchers tested the Goodness of Fit (GOF) using LISREL 9.1. in which from the measurement results, obtained Degrees of Freedom was 86, Minimum Fit Function Value was 13.39, Population Discrepancy Function Value (F0) was 3.72, 90. Percent Confidence Interval for F0 was (3.27; 4.20), Root Mean Square Error of Approximation (RMSEA) was 0.21, 90, Percent Confidence Interval for RMSEA was (0.20 ; 0.22), P-Value for Test of Close Fit (RMSEA < 0.05) was 0.00. The value of $RMSEA \leq 0.05$ indicated the *close fit* and the value of $0.05 < RMSEA \leq 0.08$ indicated the *good fit*. From the RMSEA, the calculated value was $0,20 > 0,05$. As a result, it could be affirmed that the fitness of all models belonged to *not good model*. Moreover, the Expected Cross-Validation Index (ECVI) was 4.50, ECVI for Saturated Model was 1.22, ECVI for Independence Model was 38.7. Next, the value of ECVI was 4.50 and it was closer to the ECVI saturated model compared to the ECVI Independence Model. It indicated the good fit as well.

Then, the Independence AIC value was 7624.85, Model of AIC was 886.69, Saturated AIC was 240.00 Independence CAIC was 7689.18, Model CAIC was 1032.49, and the saturated CAIC was 754.59. The AIC value was 886.69, and it is closer to the value of AIC saturated model compared to the AIC Independence model. Lastly, the model CAIC value was 1032.49 and it was closer to the value of saturated CAIC if it was compared to the Independence CAIC value. It meant that the all models categorized into *good fit*. The complete analysis results are in the picture as follows:

Chi-Square=818.69, df=86, P-value=0.00000, RMSEA=0.208

Figure 1, Factors Affecting services of Computer Assisted Learning

These results (in figure 1) indicated that teacher competency, credibility, and teacher communication illustrated a significant factor in the application of m-learning that used computer-assisted media each of which had a 1.00 correlation prediction value which was very perfect. This was not the same with the aspect of teacher service on accessibility with 0.74; this variable was not exactly strong influencing the sustainability of computer-assisted learning in remote areas.

This data showed that teacher competence reflected in his attitude had a perfect correlation prediction value (i.e. 1.00) and was one of the strongest influences on the implementation of successful computer-assisted learning. There were three attitudes that strengthen this teacher's competence, namely pedagogic competence (0.99), personal competence (0.98), and social competence (0.72). Professional competence only had a contribution of 0.05 or it was very small. Thus, the teacher's role was very dominant in achieving learning success, especially for learners who had limited learning services. The teacher's role in three aspects, namely pedagogic, personal, and social was really very necessary since the common character of junior high school students was still highly dependent on information obtained from their teachers. The second aspect that also played an important role in the success of learning was the credibility of the teacher reflected in two items, namely the attitude of being trustworthy and expert in the field (0.70), and the ability to solve problems (0.96). Trust, expertise in the field and the ability to solve problem were also a guide for students to always follow the teacher because they were the main source of information to gain knowledge and learning experience.

The third aspect was teacher communication skills which contained three important areas, namely the ability to be a good facilitator (1.00), the ability to provide alternative choices (0.44), and the ability to assist each student in learning (1.00).

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Of the three aspects of communication there were two of the most influential ones namely the ability to be a facilitator and the ability to always helped students in learning, where the closeness between teachers and students will thus be built on its own while communication between the two parties occurred. However, the ability of teacher to provide alternative choices was not yet necessary perhaps of their background which always depended entirely on the teacher's role, more specifically their cultural background to consider a teacher as a reliable problem solver.

Particularly for teacher education services in terms of accessibility, although the correlation predictions were not quite perfect (i.e. 0.74), it was also important to note especially accessibility in terms of computer use in the laboratory (1.00), the use of sports facilities (1.00), and accessibility to optimize facilities in the school environment (1.00). Other accessibilities such as the use of computers in class (0.55), computers in library (0.33), and Wi-Fi networks (0.33) still had not received an optimal response, perhaps because of the lack of optimal facilities on computer technology in the three settings.

VI. DISCUSSION

The findings were very worthy to be noted by designers and decision makers, especially principals and teacher councils, to attend to the competence, credibility, and communication skills of each teacher in optimizing the era of millennial learning which was projected to be a supporter of improving the effectiveness of learning in specific areas. The role of the teacher was still very essential even though computer-assisted learning (CAL) started to be nurtured in all regions in Indonesia.

The robust role of the competent teacher behavior had also been mentioned by many previous researchers where teacher's personality in attitude was a significant actor in teacher behavior and had a large impact on student character and achievement (Shahmohammadi., 2014). Teacher competency (in terms of pedagogic, personality, social, and professional) and teacher behavior (in terms of opening lessons, conducting learning processes, and using media) had an effect on improving student learning achievement (Lero, 2013). As a teacher who facilitated students' learning, it is recommended to have good habits in their work, namely being able to distinguish between problems inside and outside the class. Teachers must also have good communication in their work both with students and communication with the teacher, then the teachers are encouraged to be able to learn from their experiences (Shahmohammadi., 2014).

Teacher behavior also influenced the tendency of students to ask questions and remember learning throughout their lives. Teacher behavior in teaching and giving orders to students will influence students' desire to engage in cognitive activities and efforts to learn the things taught by the teacher (Loes, Kem, Ryan D, & Ernest T, 2012). The behavior of a teacher is a key in learning because the teacher is a facilitator and also the provider of an exciting learning environment for students to excel in academics. Most of the responsibility for the quality of learning depends on the personality and attitude of the teacher. 'Education' occurs through teaching and learning

relationships, therefore learning is a very important and determines the way of life of the next student.

Trends and learning behaviors differ from student to student, as well as teacher behavior must also be able to recognize the diversity to ensure appropriate learning services to students (Zaraii & Toofaninejad, E., 2011).

A teacher's credibility is also another important thing that affected the relationship between teacher and student. Credibility produced relatively comparable effect sizes, especially the impact on the quality of student behavior (Amber N, Paul, Paul L, & Nikki Elledge, 2009). Credibility is the same as trust that contains benefits for those who believe and are trusted, have moral consequences including reflection of responsibility; honorable, honest and noble behavior, guided by moral norms and integrity rules (PAwiAK, 2018). Expertise, fairness and reciprocity are the main roots of the reliability of a teacher. The first fundamental factor is knowledge and expertise, credibility is recognized for people who understand and are responsible. A person who has credibility is someone who has various sides, they have knowledge based on strict methods and procedures. The second is people who embody ideal ways into actions that can be considered well, reputed and desired. The third feature is based on attachment and effectiveness. Basically there is a perception of positive bonds with each other that can be used as a reference. All that is the emotional root of credibility also operates in friendship and, in general, in all relationships where we feel sympathy, humans correspond directly to one another (Gili, 2013).

A safe and attractive classroom environment allow students to engage with fellow learners and teachers inclusively. Strong relationships between teachers and students produce a relationship of mutual trust and mutual respect. In addition, it is very important for teachers to show real interest in students' backgrounds and academic and social welfare. An inclusive approach leads to effective communication and active participation in the classroom. The teacher plays an instrumental role in the class because it is the teacher's responsibility to create a supportive environment that enables learning to occur where it is "a moral imperative, social responsibility, and pedagogical needs" (Boer & Bordoloi, 2018). Teacher services are important, including the relationship between cognitive, the level of flexibility and ability to solve interpersonal problems. Every day the teacher faces unexpected behavior in the classroom, it requires teacher problem solving skills and the quality of management of the teaching-learning process. Therefore, effective teacher has a level of cognitive flexibility and problem solving skills because they are interrelated (ESEN–AYGUN, 2018).

The role of teacher services is also very necessary in breaking down learning problems at the high school level by the application of CAL where a computer-assisted and task-based learning media nowadays has been developed to help students learn independently and in groups (Anwar & Arifani, 2016). The role of the teacher is very decisive in this case.

Therefore, the demands of learning that meets the needs of students must be considered carefully since they are more motivated to learn when all their learning needs are accommodated so that there is a strong togetherness to complete the task. Furthermore, not only the opportunity for larger students to explore individual or group work, this computer-assisted learning has provided a lot of convenience supports in understanding the material, more interesting in the delivery, and more training options that can be offered in class (Anwar & Husniah, 2016). Moreover, the role of teacher services is also critical for the implementation of Mobile Assisted Learning (MAL). It is also often identified as part of m-learning and e-learning which has two important characteristics, namely the mobility of students and the flexibility or portability of their learning devices. Both of these aspects are perceived to be very strong by the female learners and the value of the learning achievement, especially students in universities (Oz, 2015). The value of gender and learning achievement has the strong predictor of the perception of MALL learning in which for diligent and well-trained learners this type of learning is very helpful.

The role of the teacher is also very helpful in developing MALL that optimizes the role of gamification in learning and has proven to be worthy and useful especially for French language learners (Perry, 2015). By focusing on the exploration of media which becomes part of the MALL, learners are able to optimize their interaction performance in the classroom so that it causes a positive impact on learning. This proves that the role of the teacher also influenced the application of learning technology through gamification in context-appropriate learning (Bouchefra & Baghoussi, 2017). Maximizing the role of teachers in using MALL that combines Amazon Kindle also successfully increases learning motivation and a sense of excitement in learning English, especially for learners in Palestine (Shraim, 2014).

Not only focus on developing learning, the role of the teacher is also needed in the use of MALL to assist assessment as already done by Aghajanidan Zoghipour (2018) where online assessment really helps the learning assessment process to be very effective for EFL secondary school students in writing learning. Vocabulary learning problems can also be minimized by the role of MALL as it has been done by Suwantarathip and Orawiwatnakul (2015), by using Mobile-assisted exercise. Students also benefits from memorizing vocabulary through their cellphones so that they are ultimately able to motivate learning vocabulary.

As a good and modern learning tool, MALL has also contributed to learenrs' independent learning (Tayan, 2017) especially for language learners in business schools in the Middle East. The independence and autonomy of learning are important to be optimized because intelligence developed along with the efforts of individual who has strong willingness to optimize their learning potential. Independent and autonomous learners are easier and more confident in conducting collaborative learning, especially by the optimization of mobile learning.

The good attitude of teachers in fostering a positive attitude towards CAL and technology in learning is needed because this attitude leads a positive impact on the preparation of any learning that optimizes the media of technology in learning (Bouchefra & Baghoussi, 2017). The growth of a positive attitude at the beginning and during the learning process gives a great advantage to warrant learning success itself. A good teacher's role (competence, credibility, and communication mode) in the application of CAL or MAL has a high chance to foster a positive attitude of students in an actual high level of flexibility.

VII. CONCLUSION

This study showed that the teacher's role was perceived as very dominant and influential factors on the application of learning media based on computer assisted learning services, especially in three important aspects, namely the teacher's own competence, the credibility of the teacher, and his/her communication skills. These three aspects were to be the main alarm because the teacher was the central figure for all implementations of learning media, especially in computer-assisted learning services.

Students in this case strongly believed that teachers played an important role in achieving the successful implementation of learning aids. Thus the teacher might always keep well-informed of the latest learning media to always satisfy the fulfillment of students' learning services which always evolved along with the changing and development of today's technology. Teachers were required to always improve their competence both in the form of hard skills and soft skills, credibility in guiding students, as well as better ways of communication in accordance with the level of development of students and also the environmental needs.

REFERENCES

1. Aghajani, M., & Zoghipour, M. (2018). The Comparative Effect of Online Self-Correction, Peer- correction, and Teacher Correction in Descriptive Writing Tasks on Intermediate EFL Learners' Grammar KnowledgeThe Prospect of Mobile Assisted Language Learning (MALL). International Journal of Applied Linguistics & English Literature, 7(3), 14-22. doi:http://dx.doi.org/10.7575/aiac.ijalel.v.7n.3p.14
2. Alderson, J. (1980). A Process Approach of Reading at The UNiversity of Mexico_Project in Material Design. ELT Documents Special, 134-163.
3. Al-Hebaish, S. M. (2012). The Correlation between General Self-Confidence and Academic Achievement in the Oral Presentation Course. Theory and Practice in Language Studies, 2(1), 60-65. doi:10.4304/tpls.2.1.60-65
4. Allen-Craig, Sandy and Schade, & Dagmar. (2013). Do Outdoor Education programs have a role to play in introducing and connecting Australian students to the natural environment? In M. Brown, & Mike Boyes. (Ed.), The Sixth International Outdoor Education Research Conference, Future faces: Outdoor education research innovations and visions, (pp. 10-13). Dunedin. Retrieved 5 16, 2017, from http://www.otago.ac.nz: http://www.otago.ac.nz/cs/groups/public/@outdooreducation/documents/contributorpdf/otago075564.pdf
5. Amber N, F., Paul, S., Paul L, W., & Nikki Elledge, K. (2009). A Meta-Analytical Review of Teacher Credibility and its Associations with Teacher Behaviors and Student Outcomes. Communication Education, 58(4), 516-537. Retrieved from http://dx.doi.org/10.1080/03634520903131154
6. Anderson, T., & Garrison, D. R. (1998). 'Learning in a networked world: new roles andresponsibilities'. Distance Learners in Higher Education, ed. C. Gibson, Atwood, Madison, WI, 97_112.

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7. Anwar, K. (2015). A Constructive Teaching Model in Learning Research Concept for English Language Teaching Students. International Education Studies, 8(5), 62-68. doi:doi:10.5539/ies.v8n5p62

8. Anwar, K., & Arifani, Y. (2016). Task Based Language Teaching: Development of CALL. International Education Studies, 9(2), 168-183. doi:10.5539/ies.v9n6p168

9. Anwar, K., & Husniah, R. (2016). Evaluating Integrated Task Based Activities and Computer Assisted Language Learning (CALL). English Language Teaching, 9(4), 119-127. doi:10.5539/elt.v9n4p119

10. Anwar, K., Asmara, C. H., & Muhammad, R. N. (2016). EFL Learners' Perception toward an Outdoor Learning Program. International Journal of Education & Literacy Studies, 9(2), 74-81. doi:10.7575/aiac.ijels.v.4n.2p.74

11. Arikunto, S. (2000). Manajemen Penelitian. Jakarta: Rineka Cipta.

12. Ary, D., Jacobs, C. L., Sorensen, C., & Razavieh, A. (2010). Introduction to Research in Education. Belmont - USA: Wadsworth, Cengage Learning.

13. Best, J. W., & Kahn, J. V. (1998). Research In Education. Boston: Allyn & Bacon, A Viacom Company.

14. Boer, P. d., & Bordoloi, P. (2018). Exploring Instructor Evaluation, Affective Learning and Teacher Credibility in International Classrooms. 2018 May 17th-18th, 2018 University of Applied Sciences Upper Austria,School. Cross-Cultural Business Conference. University of Applied Sciences Upper Austria,School of Management,Campus Steyr. Retrieved from www.researchgate.net/publication/325529163

15. Bouchefra, M., & Baghoussi, M. (2017). Algerian EFL University Teachers' Attitudes towards Computer Assisted Language Learning: The Case of Djilali Liabes University. International Journal of Education & Literacy Studies, 5(2), 132-139. doi:10.7575/aiac.ijels.v.5n.2p.132

16. Branden, K. V. (2006). Task-based Language Teaching in a Nutshell. In K. V. Branden (Ed.), Task-Based Language Education (pp. 1-6). Cambridge: Cambridge University Press.

17. Brata, S. S. (2008). Metodologi Penelitian. Jakarta: RajaGrafindo Persada.

18. ESEN–AYGUN, H. (2018). The Relationship between Pre–Service Teachers' Cognitive Flexibility and Interpersonal Problem Solving Skills. Eurasian Journal of Educational Research, 77. doi:10.14689/ejer.2018.77.6

19. Gall, B. &. (2003). Educational Research. New York: Longman Inc.

20. Gili, G. (2013). Expertise, justice, reciprocity: the three. ITALIAN JOURNAL OF SOCIOLOGY OF EDUCATION,, 5 (1), 1-18. Retrieved from http://ijse.padovauniversitypress.it/system/files/papers/2013_1_1.pdf

21. Harmer, J. (2002). The Practice of English Language Teaching. London: Longman.

22. Ismail, N., & Idris, K. N. (2009). The Effects Of Classroom Communication On Students' Academic Performance at The International Islamic University Malaysia. UNITAR E-JOURNAL, 5(1), 37-49. Retrieved from https://www.researchgate.net/publication/242481871

23. , B. (2005). The Effectiveness of Task Based Instruction in the Improvement of Learners' Speaking Skills. Ankara: Published Thesis: Bilkert University. http://www.thesis.bilkent.edu.tr/0002848.pdf

24. Lambert, V. A., & Lambert, C. (2012). Qualitative Descriptive Research: An Acceptable Design. Pacific Rim International Journal of Nursing Research, 16(4). https://www.tci-thaijo.org/index.php/PRIJNR/article/download/5805/5064/

25. Lero, Y. W. (2013). Pengaruh Kompetensi Dan Perilaku Guru Terhadap Prestasi Belajar Siswa Sekolah Menengah Atas Dan Sekolah Menengah Kejuruan Di Kabupaten Sumba Barat Daya. Masters thesis, Universitas Terbuka. Retrieved from http://repository.ut.ac.id/1231/

26. Loes, C. N., Kem, S., Ryan D, P., & Ernest T, P. (2012). The Effects of Teacher Behaviors on Students ' Inclination to Inquire and Lifelong Learning. International Journal for the Scholarship of Teaching and Learning, 6(2). Retrieved from https://doi.org/10.20429/ijsotl.2012.060207

27. Muijs, D. (2004). Doing Quantitative Research in Education. California: SAGE Publications Ltd.

28. Oz, H. (2015). An Investigation of Preservice English Teachers' Perceptions of Mobile Assisted Language Learning. English Language Teaching, 8(2), 22-34. doi:10.5539/elt.v8n2p22

29. Paolini1, A. (2015). Enhancing Teaching Effectiveness and Student Learning Outcomes. The Journal of Effective Teaching, 15(1), 20-33. Retrieved from https://files.eric.ed.gov/fulltext/EJ1060429.pdf

30. PAwiAK, A. (2018). Exemplification of Expectations and their Implications for Trust and Credibility of University Teachers in the Students' Opinion. doi:10.2478/pepsi-2018-0002

31. Perry, B. (2015). Gamifying French Language Learning: A Case Study Examining a Quest-based, Augmented Reality Mobile Learning-tool. Procedia - Social and Behavioral Sciences, 174, 2308 – 2315. doi:10.1016/j.sbspro.2015.01.892

32. Pishghadam, R., Makiabadi, H., & Mohtasham, M. (2018). Cultural Understanding of Controversial Issues in Class and Teacher Credibility. Introducing the Concept of Envolvement. Retrieved from www.researchgate.net/publication/325540317

33. Renganathan, Balachandran, & Govindarajan. (2012). Customer perception towards banking sector: Structural equation modeling approach. African Journal of Business Management, 6(46), 11427-11436. doi:10.5897/AJBM12.445

34. Shahmohammadi., N. (2014). Selection and peer-review under responsibility of Academic World Education and Research Center. Procedia - Social and Behavioral Sciences, 114 , 130 – 135. doi:10.1016/j.sbspro.2013.12.672

35. Shraim, K. Y. (2014). A Case Study of Mobile Technology-enabled English Language Learning: the Amazon Kindle e-Reader Initiative in Palestine. International Journal of Interactive Mobile Technologies, 8(3), 25-31. doi:http://dx.doi.org/10.3991/ijim.v8i3.3770

36. Sugiono. (2014). Metode Penelitian Kuantitatif Kualitatif dan R&D. Bandung: Alfa Beta, cet.20.

37. Sukmadinata, N. S. (2011). Metode Penelitian dan Metode Penelitian Pendidikan. Bandung: PT. Remana Rosdakara.

38. Suwantarathip, O., & Orawiwatnakul, W. (2015). Using Mobile-Assisted Exercises to Support Students'. TOJET: The Turkish Online Journal of Educational Technology, 14(1), 163-171. https://files.eric.ed.gov/fulltext/EJ1057347.pdf

39. Tayan, B. M. (2017). Students and Teachers' Perceptions into the Viability of Mobile Technology Implementation to Support Language Learning for First Year Business Students in a Middle Eastern University. International Journal of Education & Literacy Studies, 5(2), 74-82. doi:URL: http://dx.doi.org/10.7575/aiac.ijels.v.5n.2p.74

40. Tjokrosujoso, H. (1995). Analisis data penelitian. Malang: Proyek OPF IKIP Malang.

41. Zaraii, Z. E., & Toofaninejad, E. (2011). The Effect of Blended Learning on Student's Achievement. Proceedings of Global Learn Asia Pacific (December 2017), (pp. 1913–1916.). Retrieved from https://doi.org/10.15408/ijee.CITATION