NON-ENGLISH DEPARTMENT STUDENTS' ATTITUDE TOWARDS THE USE OF ICT IN AN ENGLISH MATRICULATION PROGRAM

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Abstract

Students' attitude towards technology use in classroom context is regarded as one of significant elements of the success of ICT integration in teaching and learning context. While the integration of technology in education and its elements have been discussed in literature, the discussion of students' attitude to such integration in an English matriculation program for university students is still limited. This paper attempted to investigate college non-English major students' attitude towards the use of Information and Communication Technology (ICT) in an English matriculation program. The data were collected through a questionnaire distributed to 74 students at Duta Wacana Christian University who attended an English matriculation program. The questionnaire employed a 5-point Likert type scale and consisted of three different sections which made of 33 questions in total. The data were quantitatively analyzed using IBM SPSS Statistics 22. An analysis of relationships between students' attitude to technology in learning English and their gender, age, and program was analyzed using Pearson Product-Moment correlations. Multiple linear regression was also employed to develop statistical model for this study. The findings of this study provided further discussion on the integration of technology in classroom contexts and indicated students' positive attitude towards the use of ICT in teaching and learning process.

***Keywords**: Information and Communication Technology (ICT), non-English major students, attitude to technology*

INTRODUCTION

Educational technology is more relevant today than ever before as there are more teachers integrating ICT in their classroom settings. Blended learning is believed to be one of the best method of such integration. In language learning context, blended learning has been defined in various ways. Sharma & Barrett (2007) mention that blended learning harmonizes technology and a face-to-face classroom components to teach a language. Further, Copping & Mellett (2004) point out that blended learning includes the combination of IT-based and problem-based learning strategies with an existing paper-based program. Consequently, in this study, blended learning has been defined as the combination of technology and face-to-face classroom components which is expected to create a more interesting and effective learning process.

In Indonesia, blended learning has been implemented in various kinds of context (Kunaefi, 2007; Nora & Snyder, 2008; Jokobsdottir, Mckeown, & Hoven, 2010; Kastuhandani, 2011; Ramakrisnan, Yahya, Hasrol, & Aziz, 2012). Although the practice of this strategy has gained its popularity in Indonesian education system, the variety of practices in classrooms is still limited to using the technologies in class and leaving the students outside classrooms doing homework and assignment offline.

Technological literacy as an enhancement to process learning associates with attitude towards technology as a means to support learning. When measuring technological literacy as a means to support learning process, the attitudinal dimension has to be taken into account (Ardies, De Maeyer, Gijbels, & van Keulen, 2014). Characteristics determining success of technology integration include computer self-efficacy, internet self-efficacy, computer experience, internet experience, computer anxiety, and attitude toward e-learning (Rhema & Miliszewska, 2014). Further, the quality and use of e-learning courses, functionality of e-learning platforms, and the level of student computer skills influence student attitudes towards the integration of technology to support learning (Aixia & Wang, 2011).

Many literatures have mentioned the potential of the technology integration in blended learning method and the impact on students' attitude (Isman et al, 2004; Liu, 2009; Karakas, 2011; Award & Alkaraki, 2013; Kitchakarn, 2015; Nosrati, 2015; Dashti & Aldashti, 2015) With regard to this, an understanding of students' attitude to technology in classroom context is necessary and prerequisite to effective teaching and learning process using technology. Some studies show that students have neither accurate nor complete knowledge of technology to support their learning process. Attitudes are often biased (Bame, Dugger, de Vries, & McBee, 1993).

This study is useful since there are a few studies focus on students' attitude towards the use of information and communication technology in teaching and learning process. Accordingly, the purpose of this study is to examine non-English major students' attitude to the use of technology in their English matriculation program.

RESEARCH METHOD

Data for this study was collected through a survey instrument and analyzed using IBM SPSS Statistics. To summarize and describe the data collected from the respondents, descriptive statistics were employed. In addition, Pearson Product-Moment correlations were used to analyze the relationship between variables in

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interval scale. Further, multiple linear regression was employed to develop statistical model to relate the dependent variable to student demographics and factors that may influence student attitude to technology in learning English. The dependent variable of this study was student attitude to technology in learning English, while the independent variables included gender, age, study program, confidence of learning English, and confidence of technology.

Subject

The respondents of this study were 74 students (35 males and 39 females) learning English in Duta Wacana Christian University with age ranged from 18 to 23 years old (M = 19.30, SD = 1.11). They were taking an English matriculation program as one of prerequisite subjects to take English for Specific Purposes (ESP) in their study program. The respondents were from five different study programs, i.e. Accounting (13 students or 17.57%), Architecture (18 students or 24.32%), Biotechnology (11 students or 14.86%), Informatics Engineering (12 students or 16.22%) and Management (20 students or 27.03%). Table 1 below describes the demographic of the participants.

Table 1. Demographic characteristics of respondents

Demographic	Accounting	Architecture	Biotechnology	Informatics Engineering	Management
Gender					
Female	7	10	3	4	12
Male	6	8	8	8	8
Age					
18	3	2	4	1	3
19	8	6	7	10	11
20	2	3	N/A	1	3
21	N/A	3	N/A	N/A	3
22	N/A	2	N/A	N/A	N/A
23	N/A	2	N/A	N/A	N/A

Material

This study employed closed, quantitative statements for the students to respond. The questionnaire was adopted and modified from a study of Validation of a Questionnaire to Measure Mathematics Confidence, Computer Confidence, and Attitudes to the Use of Technology for Learning Mathematics (Fogarty, Cretchley, Harman, & Ellerton, 1999) to investigate students' attitude towards the use of ICT in their English matriculation program. By administering a 5 point Likert scale, the respondents were asked to rate 33 statements using a rating scale or 1 "strongly disagree" to 5 "strongly agree" to indicate their attitude to learning English, technology, and learning English using technology.

The first part of the questionnaire consists of information related to participants' demographic and a consent agreement to continue the survey. The second part consists of 11 statements related to participants' confidence in learning English. The third part of the questionnaire consists of 12 statements related to participants' confidence in technology. Subsequently, the last part consists of 10 statements related to participants' attitude in learning English using technology.

Data Analysis

The data were statistically analyzed and recorded by using IBM SPSS Statistics 22 for Windows. Descriptive statistics, Pearson Product-Moment correlations, and multiple linear regression. Descriptive statistics were used to summarize and describe the data gathered from the participants.

The Pearson Product-Moment correlations test was employed to examine relationships between independent and dependent variables in interval scale. The independent variables for this test were student confidence in learning English and student confidence in technology. Meanwhile the dependent variable was student attitude to learning

English using technology.

This study was also employed multiple linear regression to develop a statistical model to identity the relation between the dependent variable with students' demographics and factors that may influence students' attitude to technology in learning English. Diagram 1 depicts the conceptual framework of this study.

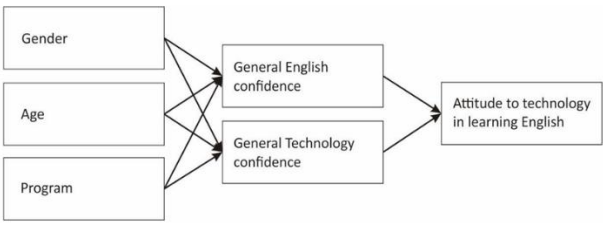

Diagram 1. Conceptual framework of the study

Procedure

Five classes were chosen randomly in this study. They were English classes for non-English department students. In preparation before administering the questionnaire, open communication with students regarding to the purpose of this study and their willingness in participating in this study was conducted. Students who agreed to participate in this study was sent either the link or QR code to the questionnaire made in Google Form.

During the data collection week, the researcher asked the students to open the link or scan the QR code and do the questionnaire. From 105 students enlisted in the classes, there were 74 of them present during the data collection week. The students directly answered the questionnaire using their own smartphones and directly sent the result to the researcher. During the time, the researcher monitored how many students have answered the questionnaire. This questionnaire is voluntary by nature. Students' response is automatically stored in Google Spreadsheet for the researcher to download and analyze.

RESEARCH RESULTS

Out of a total 74 students participated in this study, 52.7% were female. The students' age ranged from 18-23 years old. The largest number of students (56.76%) were 19 years of age, 17.57% students being in the age of 18 and 12.16% students being 20. They were from five different study programs; Accounting-17.57%, Architecture-24.32%, Biotechnology-14.86%, Informatics Engineering-16.22%, and Management-27.03%.

The mean score for the Confidence in Learning English was 36.62 (on a scale of 0 to 55) with the range of scores falling between 25 and 52 (*SD* = 5.49). The mean score for the Confidence in technology was 39.57 (on a scale of 0 to 60) with the range of scores falling between 22 and 57 (*SD* = 6.23). The mean score for the Attitude in Learning English Using Technology was 34.89 (on a scale of 0 to 50) with the range of scores falling between 14 and 50 (*SD* = 6.31).

Gender and confidence in learning English were not significantly correlated, $r(73) = .07$, $p = .54$. Gender and confidence in technology had negative correlation although not significant, $r(73) = .04$, $p = .71$. Gender and attitude to learning English using technology were reported having no significant positive correlation, $r(73) = .11$, $p = .34$.

Age and confidence in learning English were not significantly correlated, $r(73) = .01$, $p = .90$. Age and confidence in technology had negative correlation although not significant, $r(73) =$, $p = .64$. Age and attitude to learning English using technology were reported having no significant negative correlation, $r(73) = .13$, $p = .27$.

Program and confidence in learning English were not significantly negatively correlated, $r(73) = .01$, $p =$

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.92. Program and confidence in technology had positive correlation although not significant, $r(73) = .004$, $p = .98$. Program and attitude to learning English using technology were reported having no significant negative correlation, $r(73) = .1$, $p = .4$.

However, attitude to learning English using technology and confidence in learning English as well as confidence in technology showed significant positive correlation, $r(73) = .46$, $p = .000$ and $r(73) = .64$, $p = .000$ respectively.

A multiple linear regression test was employed to analyze the relation of students' confidence in learning English with gender, age, and program. The result showed that in general there was no significant relation among the variables (F (6, 67) = .45, $p = .84$). In detailed, the statistical models were as follow: for every unit increase in student age, there would be .53 unit change in student's confidence in learning English ($p = .44$); female being compared to male students would have higher score by as much as .97 unit ($p = .48$); Accounting being compared to Management students would have higher score by as much as 1.03 unit ($p = .61$); Architect being compared to Management students would have lower score by as much as .22 unit ($p = .91$); Biotechnology being compared to Management students would have higher score by as much as 2.47 unit ($p = .26$); Informatics Engineering being compared to Management students would have higher score by as much as 2.15 unit ($p = .31$).

A multiple linear regression test was also conducted to analyze the relation of student's confidence in technology with gender, age, and program. The result indicated that in general there was no significant relation among the variables (F (6, 67) = 1.54, $p = .18$). In detailed, for every unit decrease in student age, there would be .24 unit change in student's confidence in technology ($p = .75$); female being compared to male students would have higher score by as much as .17 unit ($p = .91$); Accounting being compared to Management students would have higher score by as much as .96 unit ($p = .66$); Architect being compared to Management students would have higher score by as much as 2.08 unit ($p = .32$); Biotechnology being compared to Management students would have higher score by as much as 1.35 unit ($p = .57$); Informatics Engineering being compared to Management students would have significant higher score by as much as 6.49 unit ($p = .006$).

Further, a multiple linear regression test was also employed to analyze the relation between student's attitude to learning English using technology with student's confidence in learning English and confidence in technology. The result showed that, in general, there was significant relation among the variables (F (2, 71) = 24.69, $p = .000$). In detailed, for every one unit increase in confidence in learning English, there would be .01 unit change in attitude to learning English using technology ($p = .93$); for every single unit increase in confidence in technology, there would be .64 unit significant change in attitude to learning English using technology ($p = .000$).

DISCUSSION

The results indicated that students have positive score on learning English confidence, technology confidence, and attitude to learning English using technology. Although they do not study in an English department, yet they do not show any significant burden in learning the language. Some studies describe that for Indonesian students, English is considered as one of the tough subjects learnt due to the language is not used in daily life. In

terms of technology, the result showed that the students tend to have positive attitude toward technology use during the process of teaching and learning. The results showed that the students are familiar with the technology used in classroom context and they do not need to familiarize and learn how to use the tools; even if some of them do, it does not require any rigorous effort. Being millennials brought them benefits in terms of technology confidence. Further, with relatively high score on attitude to technology use in learning English, the students confirmed that the tools helped them in learning the language. The tools gave them context and provided them opportunities to practice the language.

The strong correlation of students' attitude to the use of technology during their English classroom with their confidence in both technology and learning English showed affirmation for lecturers to continue integrating technology in their classes. Providing contextual learning and extensive exposure on real life function through the use of ICT helped students to give meaning on what they learnt in classroom.

CONCLUSION

This present study investigated students' attitudes towards the use of ICT in an English matriculation program that they joined as one of the prerequisite subject to take ESP. The findings of the study indicated that non-English department students had positive attitude towards the use of ICT in teaching and learning context. Likewise, it was revealed that there was a significant relation between their confidence in learning English and confidence in learning English with technology.

However, in conducting this study, the researcher was aware that there were a few limitations expected to be minimalized in the future studies. The statistical model in this study provided evidence that the use of technology in learning English did not necessarily improve the students' interest and retention toward the materials. There are many other interconnected variables working in every classroom setting. Therefore, future research can be conducted to understand better the interconnectedness of various variables. Likewise, it is recommended for future research to replicate this study with different and bigger populations in order to continue to validate the English Confidence, Technology Confidence, and Attitudes to the Use of Technology for Learning English. Qualitative studies to investigate deeper into the students feeling could provide deeper and stronger insights to support this finding. The studies could include issues, such as how they give meaning on the experience of using technology in learning English, why they like or dislike certain technology integration, as well as whether personal factors influence their preference in using technology in learning English.

Additionally, the findings of this study have provided some pedagogical implication foe educational context in general and English language teaching and learning specifically. This study gives insights to teachers and educators to implement and integrate ICT in teaching learning context to facilitate students with a more effective learning process.

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APPENDIX

Questionnaire items

Gender : Male/Female

Age :

Program :

The following statements refer to your confidence when learning English.

1. I have less trouble learning English than other subjects.
2. When I have difficulties with English, I know I can handle them.
3. I do not have English skills.
4. It takes me longer to understand English than the average person.
5. I have never felt myself able to learn English.
6. I enjoy trying to practice new English skills.
7. I find English frightening.
8. I find practicing English interesting and challenging.
9. I don't understand how some people seem to enjoy spending so much time on practicing English.
10. I have never been very excited about English.
11. I find English confusing.

The following statements refer to your confidence when using computers.

1. I have less trouble learning how to use a computer than I do learning other things.
2. When I have difficulties using a computer I know I can handle them.
3. I am not what I would call a computer person.
4. It takes me much longer to understand how to use computers than the average person.
5. I have never felt myself able to learn how to use computers.
6. I enjoy trying new things on a computer.
7. I find having to use computers frightening.
8. I find many aspects of using computers interesting and challenging.
9. I don't understand how some people can seem to enjoy spending so much time using computers.
10. I have never been very excited about using computers.
11. I find using computers confusing.
12. I'm nervous that I'm not good enough with computers to be able to use them to learn English.

The following questions refer to the way you feel about computers in the learning of English. [The word technology is used here to mean computers and mobile phones].

1. The lecturer's choice of computer application makes it easier to practice English.
2. I know computers are important but I don't feel I need to use them to learn English.
3. Computers and mobile phones are good tools for education, but not for my learning

of English.

4. I think using technology is too new and strange to make it worthwhile for learning English.
5. I think using technology wastes too much time in the learning of English.
6. Using technology for learning English makes it easier for me to do more realistic applications.
7. I like the idea of practicing English using technology.
8. I want to get better at using computers to help me with English.
9. Practicing English is bad enough already without the addition of technology.
10. Having technology to do routine work makes me more likely to try different methods and approaches.

NB. For all questions, the following five-point Likert scale is used: 1 = Strongly disagree; 2 = Disagree; 3 = Neutral; 4 = Agree; 5 = Strongly agree

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