STUDENTS' PERSPECTIVES ON THE APPLICATION OF INFORMATION AND COMMUNICATION TECHNOLOGY IN ENGLISH LANGUAGE LEARNING

Ryani Yulian, Urai Salam, Y. Gatot Sutapa, Y.
Masters Study Program of English Language Education, FKIP Untan
Email: **ryani_yulian@yahoo.com**

Abstract: The aim of this study was to find out students' perspectives on the application of ICT in English language learning. The methodological stance used in this study was a mixed-method study. Close-ended questionnaires were administered to 74 participants from the Fourth Semester Students of English Study Program of FKIP UNTAN. The survey stage was followed by individual in-depth interview with 10 voluntary participants. The data were fully corroborated by the analysis of the interactions in online discussion forum. The findings of the study were evidence of critical incidents of how ICT has facilitated students in learning English. The findings revealed four emerging themes namely *learning motive*, *learning effected*, *task effected*, and *learning reshaped*. From the emerging themes, it can be concluded that students' higher preference was more likely to have experiential learning activities. Based on the findings, it is recommended that students' perspectives on the application of ICT in English language learning could be the catalyst to promote an integration of technological surrounded environment in the faculty .
Keywords: students' perspectives, ICT, language learning

Abstrak: Penelitian ini dilakukan dengan tujuan untuk mengetahui perspektif mahasiswa dalam penggunaan teknologi informasi dan komunikasi dalam pembelajaran Bahasa Inggris. Penelitian ini menggunakan metode penelitian gabungan (mixed-method) dengan memberikan kuestioner kepada 74 partisipan mahasiswa semester empat Pendidikan Bahasa Inggris FKIP Universitas Tanjungpura Pontianak. Data diperoleh dari survei yang diikuti oleh 10 mahasiswa yang dilakukan secara sukarela. Pengamatan online juga dilakukan untuk memberikan informasi tambahan mengenai perspektif mahasiswa. Berdasarkan hasil analisis data diperoleh empat tema utama berdasarkan pengolahan data dari qualitatif dan quantitatif data yaitu *motif belajar, pengaruh terhadap belajar, pengaruh terhadap tugas* dan *bagaimana proses belajar terbentuk.* Dari tema yang ditemukan dapat disimpulkan bahwa mayoritas mahasiswa lebih menyukai pembelajaran dimana mereka dapat memperoleh pengalaman langsung. Mahasiswa cenderung untuk melakukan aktifitas pembelajaran dimana mereka dapat mendayagunakan daya kreatifitas dan kemampuan berpikir kritis. Oleh karena itu, diharapkan hasil dari penelitian ini dapat manjadi acuan untuk mempromosikan pengintegrasian lingkungan akademis yang berbasis teknologi.
Kata kunci: perspektif mahasiswa, teknologi informasi dan komunikasi, pembelajaran bahasa

Theoretical notions of constructivist learning theory posit an idea that ICT can always provide technologies for language learning. The increasing use of information and communication technology such as the use of internet, social networking, and web-based applications provides brand new opportunities for student to facilitate their learning. This study looked into students' perspectives on the application of ICT in English language learning because there is escalating need to find out the students' perspectives in which their perspectives play a significant role to frame the bodily process occurs in university settings.

Empirical studies concerning ICT in language learning can be noted. Ghasemi and Hashemi (2011) in a study of the potentialities of ICT as a powerful tool for foreign language teaching and the effects of this technology on second language learning highlighted that ICT can facilitate the students to have learning autonomy. In the same vein, Tekinarslan (2008) reported from the findings of his study in Turkey that blogs as web publishing tools can be used to improve the writing skill of undergraduate students and improve other skills such as information searching, literature review skills, easiness to use features, and convenience for submitting assignments.

This study was aimed to extend the findings of the previous research to different population and settings (Marczyk & De Matteo, 2005, p. 36). Chainda (2011) in his study on third-year students' perception on the use of ICT at a Teacher Training College in Namibia found out that the use of ICT and its implementation to students' learning have been received with mixed feelings, attitudes, and perceptions among students of higher education. The study looked into the students' perceived ICT skills and perceived learning strategies while using ICT. That is why this current study attempted to find out a large portion of research stems to build upon, expand, or reexplain the results of previously conducted research studies (Kazdin) in (Marczyk & De Matteo, 2005, p. 30). To fill the gap, this study set out to research on how ICT has facilitated students' language learning and the learning events which emerged when students used ICT in learning English. The uniqueness of this study lied on the efforts to discover the critical incidents when students created situations on their application of ICT. Morever, students' applications of ICT were not only viewed from general perspectives but also from the way ICT has facilitated students in learning language skills.

METHOD

This study was conducted on the basis of mixed method with central points on (1) the activities indicating students' learning while using ICT, and (2) the extent the application of ICT that facilitated students in learning English. According to Creswell & Plano Clark (2012, p. 535), a mixed method research is a procedure for collecting, analyzing, and "mixing" both quantitative and qualitative methods in a single study or a series of studies to understand a research problem. Therefore, the data were gathered from a combination of both quantitative and qualitative data namely close-ended questionnaires, in-depth individual interview, and additional analysis from online observation. In this study, the questionnaires used were adapted from EDUCAUSE Center for

Advanced Research (ECAR): Student Information Technology Use and Skills in Higher Education: 2005 and 2011 Survey Questionnaires. The following qualitative data proceeded to individual interview to probe some issues that are unanswered by the questionnaire data. The online observation was employed as it was desirable to obtain authentic data of students' application of ICT. The samples of the study were 74 students of English Study Program of FKIP UNTAN and they were selected as purposive sample. The followings are findings and discussion on students' perspectives on the application of ICT in English language learning particularly on how the application of ICT has facilitated students' learning.

RESEARCH FINDINGS AND DISCUSSION

The findings are presented in the order of the research questions raised in this study. The study specifically addressed the following questions:

1. *What activities are indicating students' learning while using ICT?*
2. *To what extent has the application of ICT facilitated the students in learning English?*

The results of the study were analyzed based on the emerging themes consisting of two major parts: activities indicating students' learning while using ICT, and the extent the application of ICT has facilitated students in learning English. The emerging themes were derived from the analysis of the 74 questionnaires administered to the students. There were also 10 students who voluntarily joined the individual in-depth interview sharing their perspectives on the application of ICT in English language learning. The analysis was also supported by the data taken from students' group discussion mediated by ontellblog.wordpress.com. This was a venue for online learning which was a part of teaching and learning process for students of English Study Program. There were 669 messages posted in this virtual classroom from January to July, 2012. Some messages were taken to yield the authenticity of the interactions in order to demonstrate the application of ICT has facilitated students in learning English
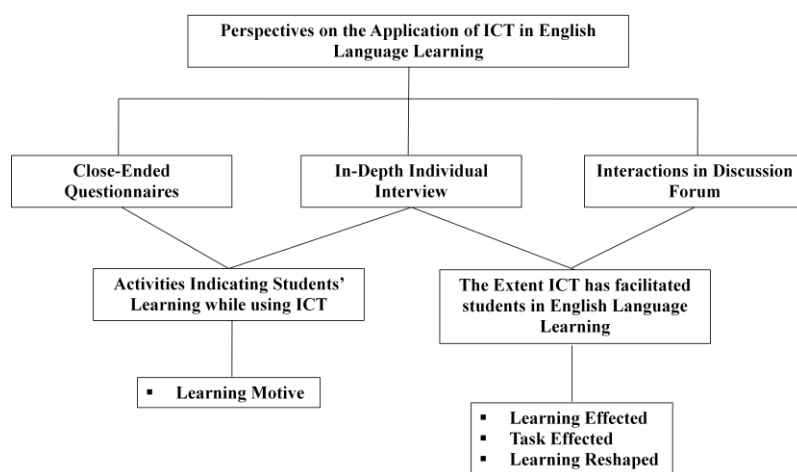

Figure 1

The Emerging Themes

Questions 1. What activities are indicating students' learning while using ICT?

The first emerging theme is *learning motive*. Among some activities of ICT in English language learning, most students commented that the vast majority of the students' responses on the ICT activities used in learning English was the use of social media (facebook). They used this technology daily for learning, social interaction, and enjoyment. The students were comfortable using this technology and they perceived that it was very helpful for their learning.

> At most of my time, I use social media, Facebook. I make status and update it. I like being able to express my ideas in the piece of writing that is on the Facebook's wall. It offers me convenience. Most of my status are in English. I think we're at the point to use this kind of technology for learning.(SA/1-Interview)

Figure 2
The Screenshot of Student's FB Status

Some related learning activities are partially assisted by using social media. Students can easily submit the assignment, share learning ideas and materials, and have social interaction among students. Most students commented that the participation in a variety of ICT activities was resulted from the practical functionality of using it for learning. They believed that the use of social media could provide variety of learning activity. The followings are given series of students' comment on the easiness of using ICT for learning activity and supported by one screenshot which testified students' shared lesson plan are helpful for their learning.

> In my opinion, it is easier to do than to do other activity, for example, when we have to submit our assignment, we just upload it in our Facebook Group. We just stay at home without going to the campus. it is flexible and efficient. [SE/1-Interview]

> Social media – the use of facebook makes everything easier. I can submit my assignment online, download lecture PowerPoint Slides, get shared materials from others, and also get class information online [SH/1-Interview]
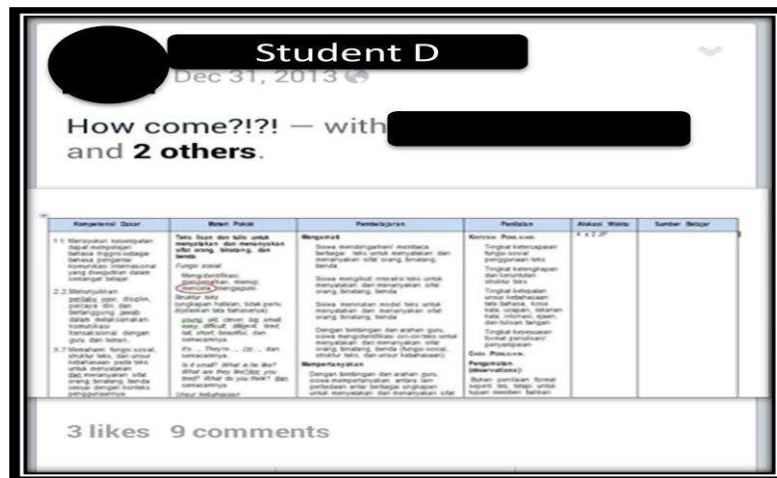
Figure 3
The Screenshot of Student's Shared Lesson Plan

Reviewing students' commentary in response to *learning motive*, it can be linked to the answers of the top five of ICT activities taken from questionnaire data and interview. The first theme – *learning motive* emerged from the answer of the questionnaires and interview data. Of the 74 students who responded to the first initial questionnaire, the general trends showed that 25 students (33,78%) selected social networking websites (Facebook, MySpace, LinkedIn, etc) as the most frequent use of ICT activities in their learning. With regard to the second list of the most frequent use of ICT activities, there were 21 students (28,37%) who selected E-books or e-textbooks. Wikis (Wikipedia, course wiki, etc.) have been presented as the third list of the most frequent use of ICT activities with 19 students (25,67%). Interestingly, 15 students (20,27%) selected blogs in the fourth list of the most frequent use. Lastly, Video-sharing websites (YouTube, etc.) were selected by 14 students (18,91%) as the fifth list of the most frequent use of ICT activities in their learning.
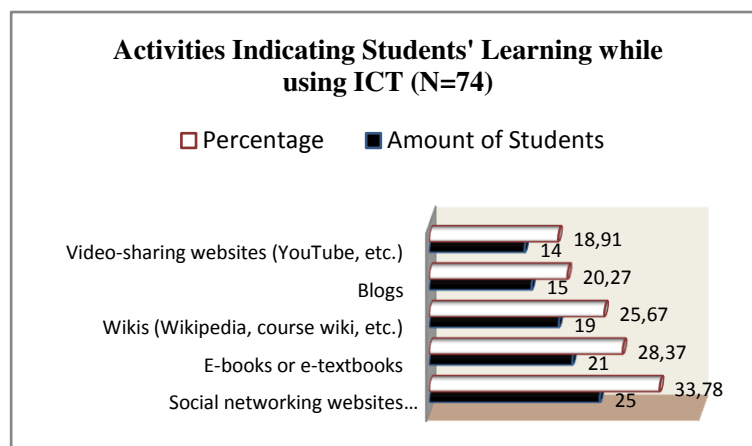

Figure 4: Activities Indicating Students' Learning while using ICT

Students' responses on the activities indicating their learning while using ICT are also supported by the descriptive data from the following questionnaires which indicated that students mostly made good use of technology for their learning.
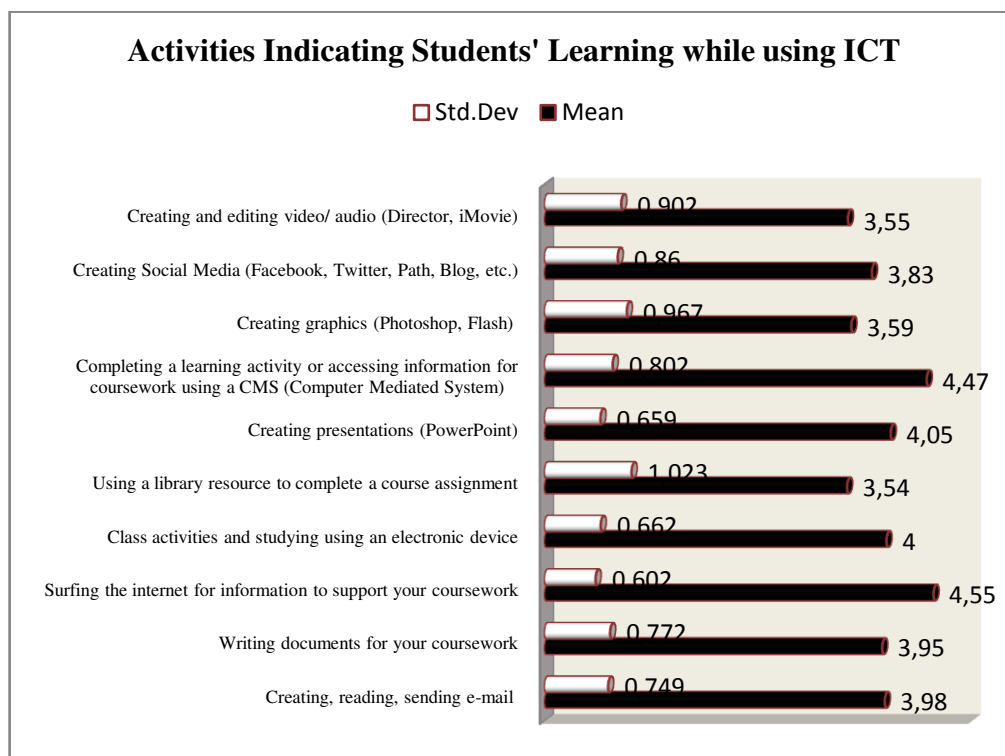

Activities Indicating Students' Learning while using ICT

□ Std.Dev ■ Mean

Activity	Std.Dev	Mean
Creating and editing video/ audio (Director, iMovie)	0.902	3,55
Creating Social Media (Facebook, Twitter, Path, Blog, etc.)	0.86	3,83
Creating graphics (Photoshop, Flash)	0.967	3,59
Completing a learning activity or accessing information for coursework using a CMS (Computer Mediated System)	0.802	4,47
Creating presentations (PowerPoint)	0.659	4,05
Using a library resource to complete a course assignment	1.023	3,54
Class activities and studying using an electronic device	0.662	4
Surfing the internet for information to support your coursework	0.602	4,55
Writing documents for your coursework	0.772	3,95
Creating, reading, sending e-mail	0.749	3,98

Figure 5: Mean Score and Standard Deviation of Activities Indicating Students' Learning while using ICT

Question 2. To what extent has the application of ICT facilitated the students in learning English?

The Extent ICT Has Facilitated Students in Learning English

When students were asked about the preferences with regard to the application of ICT in their learning, the answers denoted that the majority (61%) of students preferred to choose taking courses that use technology extensively (e.g., class lecturer notes online, computer simulation, PowerPoint presentation, streaming video or audio, et.). This is specifically referred to the lectures note and presentation in PowerPoint. Of 31% of the students preferred to take courses that use a moderate level of technology which covers the use of email, several PowerPoint presentation, and some online activities or content. Only small number of students preferred to use limited and no information technology in their learning. The following figure comes closer to see the extent ICT has facilitated students in learning English in term of their preferences of the course activity by using technology.
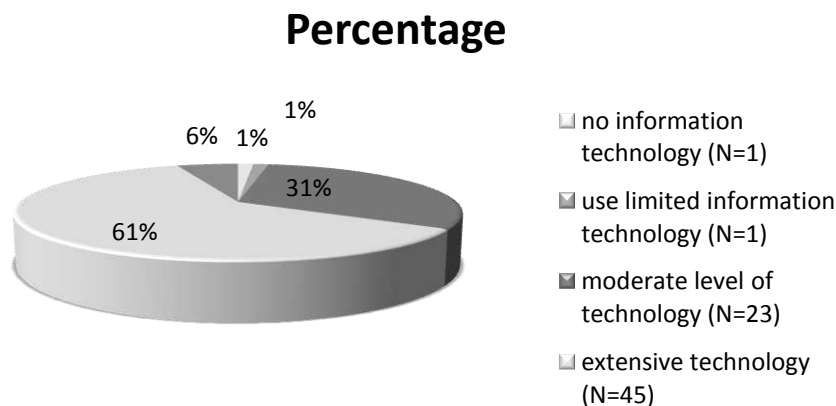
Percentage

1%
6% 1%
31%
61%

- no information technology (N=1)
- use limited information technology (N=1)
- moderate level of technology (N=23)
- extensive technology (N=45)

Figure 6: Students' Preferences for Technology in Courses

The main analysis of the second research question focused on the extent ICT has facilitated students in English language learning – potentiality and experiences – of ICT in their learning. The discussion running across the students' perspectives can be elaborated in terms of three major emerging themes namely, *learning effected*, *task effected*, and *learning reshaped*.

At this point, the analysis of data concerned on the contribution of ICT use to effect students' learning – *learning effected*. Students at English Study Program showed great excitement and interest to use social media in their learning. The use of social media was seen as addressing authentic learning which occured directly. One student believed that at one particular situation sharing what he has on the facebook's wall can lead to a learning effected activity. For example, when he posted a status of tongue twister, unexpectedly, his classmates at English Study Program commented. This was really relevant to their educational background to share what they can do to improve their English pronunciation. They can be more conscious that the topic of tongue twister can raise their efforts to keep practicing their pronunciation skill.

> Once in a time, I posted a status about tongue twister. There are comments given by my friends. The first purpose is just I practice it for my self, but when comments are coming, it becomes an interesting topic to discuss about. We learn to improve our pronunciation indirectly, isn't good? [SA/4-Interview]

The followings are the screenshot to testify that a simple status can bring significant effect on students' learning. When discussing this kind of topic, other students came up with feedbacks so that the social interaction was more alive. It critically set up a learning interaction which is beneficial for students' learning who learn English language.
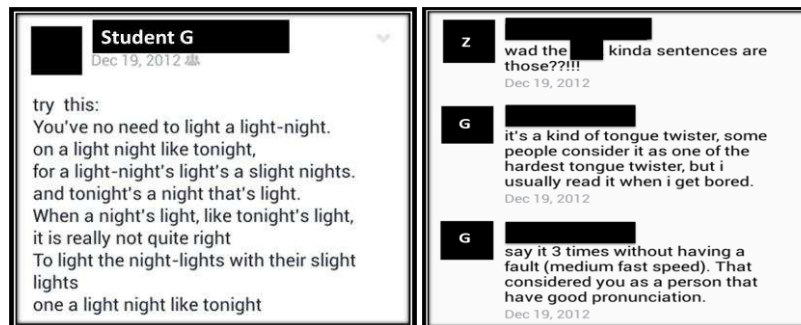
6

Figure 7
The Screenshot of Students' Interaction on FB

These interview data can be supported by the descriptive statistics of questionnaire on the extent that describes the students' experience in the English subjects in English Study Program of FKIP UNTAN. One of the points in the questionnaires revealed that most students showed that technology can facilitate presentation in class activities. The responses from questionnaires were presented based on a five-point scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). The answers were calculated in each category and presented by means of table of descriptive statistics (mean score and standard deviation) as can be seen as follows:

Table 1
The Extent that describes the Students' Experiences in the English Subjects

Item	Mean Score	Std. Deviation
1. I am more engaged in courses that require me to use technology	3,62	0,902
2. Overall, my lecturers use information technology well in my courses	3,41	0,740
3. The lecturers' use of technology in my courses has increased my interest in the subject matter	3,81	0,770
4. I primary use information technology in courses to improve my presentation of my work	4,28	0,652
5. My campus needs to give me more training on the information technology that I am required to use in my courses	3,94	0,858

The extent ICT has facilitated students in English language learning – *learning effected* can be affirmed by the idea taken from online discussion forum. From 669 messages posted on online discussion forum, the transcript of the discussion forum is subdivided into three main items such as interaction and communication between students and lecturer, students and students, and students participation in learning activities, and collaboration. The transcript of discussion forum showed that the first written message in this online learning is an uploaded class syllabus initially posted by the lecturer. Subsequently, the lecturer posted materials for chapter discussion. The first topic in this discussion forum was about

E-Learning. Herewith, the first initial message was posted by the lecturer through asychronous learning. The lecturer was one of the two major actors in this online discussion forum where he had a role to give instructional technology to the students. Also, the lecturer was responsible to facilitate the students to get involved in the material discussion and to be the center of the learning in this online discussion forum. The following message is taken and presented to yield the authenticity of the online discussion forum
[message 1.1, Date: February 22, 2013]

Assalamu'alaikum,
Dear students, I have uploaded materials for discussion. You can downloaded from here . You can also obtain the Class Syllabus there .
Other resources are also available on ONTeLL blog https://ontellblog.wordpress.com/
Everybody must download all reading lists.
Cheer.

The next data showed a compelling subtheme namely *task effected*. When asked about the useful ICT activity, most students commented the extent ICT in their learning can promote easiness in terms of doing their academic activity. In line with the most frequent activity used by the students which is the use of social media, most students made good use of it to deal with various kind of their learning activity. They can download the material shared by others and also learning materials posted by the lecturer. The most common activity is some students occasionally posted some downloaded file regarding their task activity. This kind of activity is helpful because it can help the students organize and manage information. This also facilitated the students to collaborate with their friends.

> For me, ICT gives a chance for making our task easier. For example, we use Facebook to post some materials which are required in our subjects. By having this activity, we have no problem to do our structural assignment. When we have to make syllabus, one of my friends has posted it, so I have the sample to create my own syllabus. The syllabus is of course given by the lecturer. [SE/2-Interview]

Figure 8. The Screenshot of Students' Shared Materials

Having seen the previous emerging themes, this part of analysis embraced the extent ICT has facilitated students in English language learning which concerns on the contribution of ICT to reshape students' learning. Students revealed that there is a precondition of the application of ICT so that it can be noted that the application of ICT is potentially relevant to allow them to take control of their learning. When asked about using technology to facilitate autonomous and collaborative learning, the students all agreed that ICT can lead them to take control of their learning, ease their assignment and task activity, and help them better communicate and collaborate with their classmates. Taken from one screenshot of student's posting on Facebook indicated that student did not only get access to resources for learning in a trivial way but also it offered affordances to use their critical thinking skill on certain kind of topic. *Student B* commented that using technology can enable her to enhance higher order thinking which automically leads to learning autonomy.

> On Facebook, I follow some learning pages about English language learning. It's better to do this than to open certain webpages on search engine. My favourite one is Edutopia. What I got here is something to develop my critical thinking skills. For me, It gives great autonomy because I can get access independently while the topic also offers me worthful ideas. [SB/5-Interview
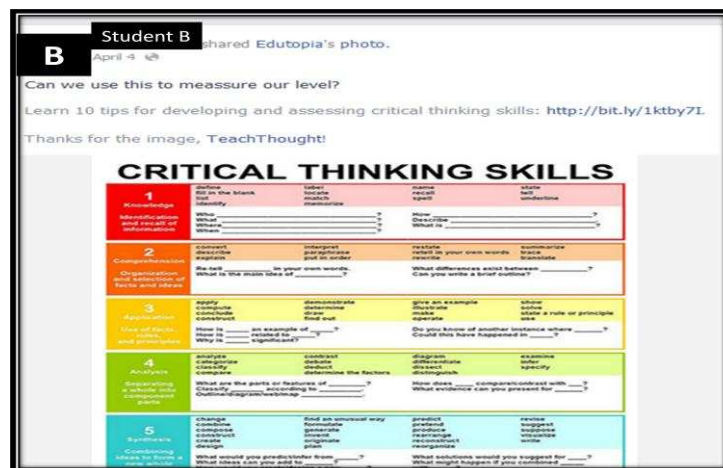

Figure 9
The Screenshot of Student's Shared Webpage

Finally, this part of emerging theme, *learning reshaped* is supported by the findings of the interactions among the students in online discussion forum. It can be seen that the interaction based on the two major human actors, students and their interaction with each other, and with content plays an important role to facilitate students' learning. It was well documented that when the students discussed topic on the benefits of blog to their English, this emerged suitably with the notion that the ICT has facilitated students' in English language learning. Most of them expressed dynamic ideas. The students were able to link the ideas of the benefits of blogs to their English skills and combine so as to form more

complex ideas. Students used their tacit knowledge and they asked for feedbacks from other students in this online discussion forum. It means that this kind of interaction has facilitated students to acquire a critical and constructive ways of using technology to reshape their learning.

[message 1.12, Date: April 30, 2013]

S9 posted:

642 How building blog benefits to my English	|+→|
S9	Apr 30, 2013
	View Source

Good evening guys.
I am sorry for being late join the discussion because of some problems.
Now,I would like to talk about the benefits of building blog for my English as ▮▮▮ asked for. The advantages of building blog for my English are :
1. Improve my knowledge about English it self.
By building blog I improve my knowledge about English it self because before I post some websites to the blog, I learned the websites first, to know what the contents of the websites and consider whether they are suitable or not to the blog's theme.
2. Improve my writing skill
I was doing writing practical when I made the descriptions of the websites. By doing more practice, my writing skill will be better.

From the emerging theme, the activities indicating students' learning while using ICT are theoretically supported by the notion that the application of ICT for language learning has changed the way students learn the language. This is illustrated by the first theme, *learning motive*. Students were concerned to engage in ICT for their learning as it is in line with Khirwadjar & Pushpanadham (2005, p. 3) that information and communication technology should be part of learner's activities because it is based the learning on the skills and knowledge required in the ever-changing society. Interestingly, the students had self-awareness that the technological affordances of ICT make them an appealing technology for a various range of learning activity. The research findings also disovered that when students used social media for their learning, it can encourage them to integrate their literacy skills. The use of social media can enhance interactive learning styles and provides many opportunities for language creativity (Ghasemi and Hashemi, 2011). Given that the use of social media is time-effective, practical, and relatively prompted by reasoning, the students were able to construct knowledge at their own pace and increase their participation in learning activity in social media. In the context of using other frequent ICT activities such as e-books, wikipedia, blogs, and video-sharing websites, students exhibited that they always take part in these various activities due to an assumption that ICT can offer them a powerful way of enabling them to be fully engaged in their own language learning process (Ghasemi and Hashemi, 2011). In broader scope of theory, the activities indicating students' learning while using ICT can be illustrated in The Mode Continuum which is adapted from Kervin and Derewianaka (2011, p. 329) as can be seen in Figure 1.10. This is to describe the role of the ICT activities in students' learning.
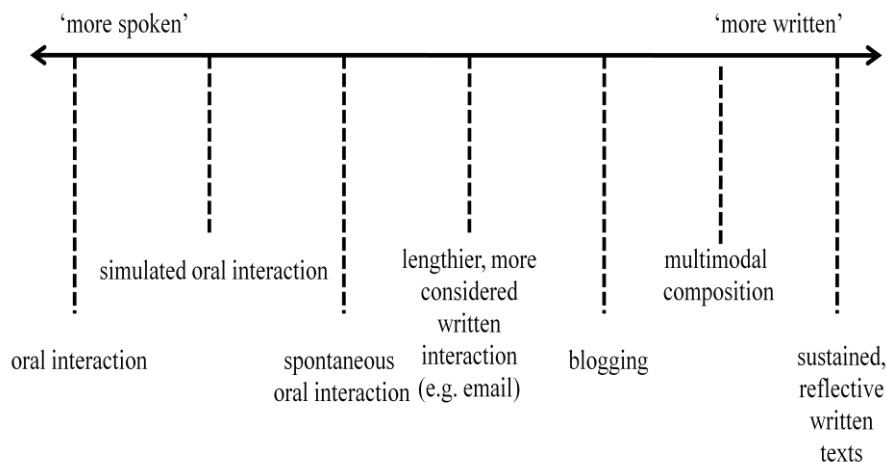
Figure 10
The Mode Continuum by Kervin and Derewianaka (2011)

From this mode continuum, the findings of the study can explore the various ICT activities students use in their learning. Reported from students' interview, questionnaires data, and analysis of online discussion forum, most students, at the same time, combined a continuum from 'more spoken' to more written' activity. Kervin and Derewianaka (2011, p. 329) foreground that learning at the 'more spoken' end of continuum can potentially involve interactive, 'first draft, exploratory language which aim to share knowledge. The possible value of this kind of interaction can provide immediate context, and support interaction with prompt feedback and relevant vocabulary. The 'more spoken' activity students mostly engage is the use of social media for sharing and conceptualizing their ideas visually. Differently, towards 'more written' end of continuum, there is a shift of learning because of opportunity to reflect on language use (Kervin and Derewianaka, 2011, p. 329). When students tended to get closer to 'more written' continuum, they were able to make connection to manage the organization of the writing, to consider the audience as they used it in writing blogs. Moreover, when the students designed the blog, they can learn of how to make a composition of visual elements, images and texts.

The next discussion lies on the extent the application of ICT has facilitated students in English language learning. The first emerging theme on the second research question, *learning effected*, illustrated that some ICT activities have facilitated students in English language learning. From the questionnaire data, the vast majority of students were prone to use extensive ICT in their English language learning. They believed the application of ICT in languuge learning can help them improve their academic presentation. When they can get easiness of their presentation of subject activities, they can take responsibility to their learning. Other remarkable point is that students were facilitated on how macroskills such as speaking and writing skills can be enhanced through the application of various ICT activities. When they used video-sharing websites to watch native-speaker of English, they did not only have self-directed learning to achieve their goal, but they also had learning autonomy. They can manage

something useful for their study. Reinders and White (2011, p. 1) argue that this kind of technology both provides access to resources and offer increased affordances for autonomous learning.

The second theme, *task effected*, highlighted situations where students were fully facilitated by ICT in dealing with their course activities. From students' comment, it can be discovered that ICT was useful to enable the students to accomplish their task activity easily and reliably. When they shared learning materials with other friends, they were able to get benefits from collaborative learning activities. It is in accordance with Stahl, Koschmann, Suthers (2006, p. 3) who implicate that ICT promotes collaborative learning for both individual and groups, and at the same time, the student can get involved in phenomena like the negotiation and sharing of meanings—including the construction and maintenance of shared conceptions of tasks—that are accomplished interactively in group processes.

The final theme, *learning reshaped*, revealed much of what the students said as consistent with the research findings from questionnaire, interview, and online observation. The thematic ideas illustrated that students experienced a dynamic and interactive situations when they used ICT for their learning. They did not merely use ICT as technological device, but they used it for something to learn with. They utilized ICT in such a way so that they can improve their critical thinking skills.

After all, the emerging themes – *learning motive, learning effected, task effected* and *learning reshaped* were presented with critical incident as they have purpose to explore the answer from the students of how they were involved in the application of ICT in English language learning, and how the application of ICT contributed and facilitated their learning. It is in line with the primary goal of critical incident analysis where it has normally explored particular type of incidents – those that researchers perceive to be critical in some ways (Weatherbee, 2010, p. 247). It was based on the judgement when a particular student's activity is valued because its occurrence contributed to learning

CONCLUSION

The first conclusion is students have mixed ICT activities in their learning. The majority of students were accustomed to using simple activities such as the use of social media, e-books, wikipedia, blogs, and video-sharing websites. Other ICT activities such as the use of photo-sharing websites, audio and video creation software, simulation and educational games, course lecture podcasts and video, and particularly, web-based citations resources websites were rarely used by the students. They were aware of the potentiality of ICT activities, but they had less exposure to use some ICT activities effectively.

The second conclusive idea is that students' preferences with regard to the application of ICT in their learning, showed that most of the students (61%) preferred taking courses that use technology extensively such as the class lecturer notes online, computer simulation, and PowerPoint. At one particular example, when the students used social media, they can present complex information in visual, help organize or manage information, encourage and to engage with

subject materials, communicate and collaborate with classmates, and participare more fully in class activities. This means that students were able to have their own learning autonomy and collaborative learning with ICT.

The final conclusion is that the analysis of the interactions in online discussion forum revealed that both students and lecturer did not steadily create continuous interactions. Although the interaction between the students-lecturer was not intensive, the students always actively participated in every material discussion. It is provable that the interaction and communication among the students were alive. It can be assured when the major strengh of this online classroom can promote interaction and communication, provide availability of different social interactions, compatibility of the system with other technologies, and unconsciously, enhance the students' confidence to interact with other students.

BIBLIOGRAPHY

Abbott, C. (2001). *ICT: Changing Education Master Classes in Education Series.* New York: RoutledgeFalmer.

Amarin, N. Z., & Ghishan, R. I. (2013). Learning With Technology from a Constructivist Point of View. *International Journal of Business, Humanities and Technology Vol.3 No.1 January*, 52.

Anderson, Terry. (2004). Theory and Practice of Online Learning. In Anderson, Terry & Elloumi, Fathi (Eds.). Canada: Athabasca University.

Benson, P. (2013). Teaching and Researching Autonomy. In Candlin, Christopher, N & Hall, David, R (Eds.), *Applied Linguistics in Action Series* (p. 58). USA: Routledge.

Brooks, Margaret, L. (2002). *Drawing to learn*. (Unpublished Phd thesis). University of Alberta, Canada.

Chainda, Allen, Mukelabai. (2011). *Third-Year Students' Perceptions of The Use of ICT at A Teacher Training College in Namibia*. (Unpublished thesis). Stellenbosch University.

Cohen, E. B. (2009). Growing Information Part 1. *Journal of Issues in Informing Science and Information Technology Volume 6*, 158.

Cohen, L., Manion, L., & Morrison, K. (2005). *Research Methods in Education 5th Edition.* London: Routledge Falmer.

Creswell, J. W. (2007). *Qualitative Inquiry & Research Design Choosing Among Five Approaches: Second Edition*. United States of America. Sage Publications, Inc.

Creswell, J. W. (2012). *Educational Research Planning, Conducting and Evaluating Quantitative and Qualitative Research Fourth Edition.* Boston: Pearson.

Enonbun, Oluwafisayo. (2010) "Constructivism and Web 2.0 in the Emerging Learning Era: A Global Perspective," *Journal of Strategic Innovation and Sustainability*, 6(4), 16- 25.

Fageeh, Abdulaziz, Ibrahim. (2011). EFL Learners' Use of Blogging for Developing Writing Skills and Enhancing Attitudes Towards English

Learning: An Exploratory Study. *Journal of Language and Literature Vol. 2 No.1, 31-48.*

Fu, Jo, Shan. (2013). ICT in Education: A Critical Literature Review and Its Implication. *International Journal of Education and Development using Information and Communication Technology (IJEDICT),* Vol. 9, Issue 1, pp. 112-125

Gall, M. D., Gall, J. P., & Borg, W. R. (2003). *Educational Research An Introduction Seventh Edition.* United States of America: Pearson Education, Inc.

Gay, L. R., & Airasian, P. (2000). *Educational Research Competencies for Analysis and Application Sixth Edition.* New Jersey: Prentice-Hall, Inc.

Ghasemi, B., & Hashemi, M. (2011). ICT: Newwave in English language learning/teaching. *Procedia Social and Behavioral Sciences 15*, 3098-3102.

Goktas, Y., Yildirim, S., & Yildirim, Z. (2009). Main Barriers and Possible Enablers of ICTs Integration into Pre-service Teacher Education Programs. *Educational Technology & Society*, *12*(1), 193–204.

Hrastinski, Stefan. (2008). Asychronous & Synchronous E-Learning. *EDUCAUSE Quarterly* (4), 51-54.

Hughes, Hilary and Williamson, Kirsty and Lloyd, Annemaree. (2007). Critical incident technique. In Lipu, Suzanne (Ed). *Exploring methods in information literacy research*. Topics in Australasian Library and Information Studies, Number 28. Centre for Information Studies, Charles Sturt University, Wagga Wagga, N.S.W., pp. 49-66.

Jordan, A., Carlile, O., & Stack, A. (2008). *Approaches to Learning A Guide for Teachers.* USA: Open University Press.

Jung, Sei-Hwa. (2006). The use of ICT in learning English as an International Language. University of Maryland, College Park. Retrieved from Ohio University's Electronic Theses and Dissertation Center: https://etd.ohiolink.edu

Kaminski, K., Seel, P., & Cullen, K. (2003). Technology Literate Students? Results from a Survey. *EDUCAUSE Quarterly*, *26*(3), 34-39.

Kern, R. (2006). Perspectives on technology in learning and teaching languages. *TESOL Quarterly, 40*(1), 183-211.

Kervin, L. & Derewianka, B. (2011). New technologies to support language learning. In B. Tomlinson (Ed.), Materials Development in Language Teaching (pp. 328-351). Cambridge, UK: Cambridge University Press.

Khirwadjar, A., & Pushpanadham, K. (2005). *Information and Communication Technology Interactive Multi-media Instructional Strategies for Teaching and Learning.* New Delhi: Sarup & Sons.

Koohang, Alex., Riley, Liz., Smith, Terry. (2009). E-Learning and Constructivism: From Theory to Application. *Interdisciplinary Journal of E-Learning and Learning Objects, Vol. 5.*

Kvavik, R. B., & Caruso, J. B. (2005). *ECAR study of students and information technology, 2005: Convenience, connection, control, and learning*. Boulder, CO: EDUCAUSE Center for Applied Research. Retrieved

November 25, 2013, from www.educause.edu/ir/library/pdf/ers0506/rs/ERS0506w.pdf

Lee, Cheun-Yeong. (2009). A Case Study of Using Synchronous Computer-Mediated Communication System for Spoken English Teaching and Learning Based on Sociocultural Theory and Communicative Language Teaching Approach Curriculum. (Doctoral Dissertation). Retrieved from Ohio University's Electronic Theses and Dissertation Center: https://etd.ohiolink.edu

Leonard, David, C. (2002). *Learning Theories: A to Z*. Unites States of America: Greenwood Publishing Group, Inc.

Liu, M., Moore, Z., Graham, L., & Lee, S. (2003). A look at the research on computer-based technology use in second language learning: A review of the literature from 1990-2000. *Journal of Research on Technology in Education, 34*(3), 250-273.

Magambo, Justine. (2007). Use of Information and Communication Technologies (ICTs) in teacher education in Sub-Saharan Africa: case studies of selected African universities. der Universität zu Köln. Retrieved January 27, 2014, from *kups.ub.uni-koeln.de/2140/1/magambo2710790.pdf*

Marczyk, G., & Matteo, D. D. (2005). *Essentials of Research Design and Methodology*. United States of America: John Wiley & Sons, Inc.

Oliver, Ron. (2002). The role of ICT in higher education for the 21st century: ICT as a change agent for education. Edith Cowan University, Perth, Western Australia. Retrieved November 8, 2013 from http://www.citeseerx. ist.psu.edu/viewdoc/download?doi=10.1.1.83 2002

Pinkman, K. (2005). Using Blogs in the Foreign Language Classroom: Encouraging Learner Independence. *The JALT CALL Journal, 1*(1).

Reinders, Hayo., & White, Cynthia. (2011). Special Issue Commentary Learner Autonomy and New Learning Environments. *Language Learning & Technology Volume 15*(3), 1-3.

Sharma, Kusum. (2011). The Role of ICT in Higher Education for the 21st Century : ICT as A Change Agent for Education. *VSRD-IJCSIT, Vol. 1*(6), 382-39.

Smeets, Ed. (2005). Does ICT contribute to powerful learning environments in pimary education?. *Computers & Education 44,* 343–355.

Stahl, G., Koschmann, T., & Suthers, D. (2006). Computer-supported collaborative learning: An historical perspective. In R. K. Sawyer (Ed.), Cambridge handbook of the learning sciences (pp. 409-426). Cambridge, UK: Cambridge University Press. Available at http://GerryStahl.net/cscl/CSCL_English.pdf in English.

Tekinarslan, Erkan. (2008). Blogs: A qualitative investigation into an instructor and undergraduate students' experiences. *Australasian Journal of Educational Technology 24*(4), 402-412.

Tripp, David. (1993). Incidents in Teaching: Developing Professional Judgement. New York: RoutledgeFalmer.

Vygotsky, Lev. (1997). Readings on the Development of Children Second Edition. In Gauvain, Mary & Cole, Michael (Eds.). From Mind and Society (pp. 79 -91). New York: W. H. Freeman and Company.

Warschauer, M. (2001) Millennialism and media: Language, literacy, and technology in the 21st century. *AILA Review, 14*, 49-59.Wenger, E. (1998). Communities of Practice: Learning, meaning, and identity. Cambridge: Cambridge University Pres.

Warschauer, M. (2002). A Developmental Perspective on Technology in Language Education. *TESOL Quarterly Vol. 36 No. 3*, 453-475.

Warschauer, M. (2007). Computer-Mediated Collaborative Learning: Theory and Practice. *The Modern Language Journal*, *Vol. 81 No. 4*, Special Issue: Interaction, Collaboration, and Cooperation: Learning Languages and Preparing Language Teachers (Winter, 1997), pp. 470-481.

Warschauer, M., & Liaw, M. (2011). Emerging technologies for autonomous language learning. Studies in Self-Access Learning Journal, *2*(3), 107-118.

Weatherbee, Terrance, G. (2010). Crtitical Incident Case Study. In Mills, Albert, J., Eurepos, Gabrielle., & Wiebe, Elden (Eds.), *Encyclopedia of Case Study Research* (Vol.1, pp. 247-248). United States of America: SAGE Publications, Inc.

Yunus, M. M., Lubis, M. A., & Lin, C. P. (2009). Language Learning via ICT: Uses, Challanges, and Issues. *WSEAS Transactions on Information Science and Applications Issue 9 Volume 6*, 1453-1467.

Yunus, M. M., Hasyim, H., Embi, M. A., & Lubis, M. A. (2010). The utilization of ICT in the teaching and learning of English: 'Tell Me More'. *Procedia Social and Behavioral Sciences 9*, 685-691.

Zhao, Y. (2003). Recent Developments in Technology and Language Learning: A Literature Review and Meta-analysis. *CALICO Journal, 21*(1), 7-27.

Zhao, Y. (2005). *Research in technology and second language learning: Developments and directions.* Greenwich, CT: Information Age Publishing.