The Use of ICT in Teaching: Lecturers’ Perceptions, Obstacles, and Expectations

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Abstract. Since the technology has been developed, Educators should consider this to be a value for educational purposes. In millennial teaching, the use of ICT is common nowadays especially in higher education. The use of ICT is meaningful and helpful for lecturers to enhance their teaching performance. This study attempts to investigate the lecturers’ perceptions, lecturers’ obstacles, and lecturers’ expectations on the use of ICT in teaching. The researcher sees a need to carry out this study as it provides a platform to discover pedagogical implications that would benefit the lecturer in terms of using ICTs as media in their teaching. The respondents of this research were 40 lecturers in higher education of economics study in Sumatra, Indonesia. The lecturers’ perceptions, lecturers’ obstacles, and lecturers’ expectations were measured through a questionnaire and an interview. The findings showed most of lecturers had positive perception towards it, limited knowledge and limited understanding on how to integrate ICT into teaching which were dominant obstacles for respondents when using ICT into teaching. Respondents hope that an increased use of the computer would make the class more interactive, to use computers to do more interesting and imaginative work, computers could be used to provide more interactive activities for students, would provide students with more practical and useful knowledge, and they need tutor to teach how to use software or how to integrate ICT into teaching. The results of this study is beneficial for educators in incorporating ICT into their teaching repertoire.

1. Introduction
Lecturer has an important role to integrate ICT in their teaching method. Lecturer has a challenge to adjust the conventional method by using ICT tools as media in their teaching. The more a lecturer employs instructional technology in the classroom, the less lecturer-centered a classroom will become (Erben, T. Ban, R. & Castaneda, M. 2009: pg.81). While it encourages the interactive classroom and promote student-centered learning. On the other hand, lecturer who lives in different decades with the students, they are as immigrant in the world life nowadays so using ICT may trigger bad attitude towards it. As Dudeney and Hockly (2007: 9) argued that a large part of the negative attitudes lecturers have towards technology is usually the result of a lack of confidence, a lack of facilities or a lack of training, resulting in an inability to see the benefit of using technologies in the classroom.

Although the use of ICT by lecturer is still not widespread, the use of technology in the classroom is becoming increasingly important. Therefore, it is necessary to comprehend lecturers’ perceptions, the obstacles, and expectations in using ICT. In accordance with that point, it is fascinating to investigate those points toward the use of ICT in teaching. The researcher formulated the following research questions:

• What are lectures’ perceptions toward the use of ICT in teaching?
• What are lecturers’ obstacles toward the use of ICT in teaching?
• What are lecturers’ expectations toward the use of ICT in teaching?
2. Literature Review

2.1 The Overview of ICT in Education
Today, the international community no longer sees literacy as a mere stand-alone skill, but instead as a social practice contributing to broader purposes of lifelong learning (UNESCO, 2004:10). Promoting literacy was fundamentally a matter of enabling individuals to acquire reading, writing and calculating skills but nowadays ICTs skills also should be integrated in learning to promote literacy. ICT in Education cannot and should not be divorced from the larger national development strategy (Swart, P & Wachira, E.M, 2010: 20). For countries like Indonesia which aspire to become knowledge societies, ICT and Education should be seen as key drivers in the production and use of knowledge. Therefore ICT in Education should be situated not only within the education policy and strategy but also within the broader national development strategy. Nowadays importance of information technology in educational sector is well known. Information technology helps the students as well as the lecturers in studying the course material easily because of fast access (Rodinadze, S & Zarbazoia, K, 2012).

2.2 Lecturers’ Role in Integrating ICT into Teaching
Kerr’s (1991) in Swarts, P & Wachira, E.M. (2010) interviewed and observed with US lecturers who had successfully incorporated technology into their practice indicated that using it allowed ‘obvious and dramatic’ changes in classroom organization and management. So offering opportunities for exploration and familiarization with technology is essential to build lecturer confidence and iron out uneven levels of access and experience. (Hennessy, S., Ruthven, K & Brindley, S, 2005: 168). As Becta (2006) implied that lecturers can maximize the impact of ICT in their classrooms by ensuring that they and their students use ICT as an integral part of lessons, present ideas dynamically, and use a range of media.

As a consequence, anyone concerned with teaching and learning in the 21st century needs to grasp the nature of the unique technology-mediated tasks learners can engage in for learning activity and how such tasks can be used for assessment. Learners typically use computers at least to write papers, receive and send e-mail, and browse the World Wide Web; one challenge for lecturers is to shape some of their computer using experience into teaching and learning experiences.

Lecturers who are interested in using technology as a means of promoting the subject through project-based learning or within a differentiated classroom have a wide variety of technological tools at their disposal to choose from. Although the specific role of the lecturer is one of planning and organizing the integration of subject-specific content material as far as technology is concerned, the onus is on lecturers to decide which technology is best suited to accomplish the pedagogical objectives of an activity (Erben, T. Ban, R. & Castaneda, M. 2009: pg.110).

Online education is about connecting the students to educational materials by way of the internet. Online education combines a student, a curriculum (determined by the school or instructor), and an internet connection (Manning, S & Johnson, K. 2010: 5). When lecturers perceive ICT as a tool to meet curricular goals, they are more likely to integrate ICT in their lessons. While local content in the local language promotes better use of ICT-based resources and materials, the use of practical lesson in campus optimizes the potential of ICT (especially the Internet) for teaching and learning. Proper use of ICT tools offers students and lecturers learning and teaching opportunities and improves teaching and learning processes.

2.3 ICT and Students’ Need in Technology Development
The time has come to introduce available cutting-edge technologies in language teaching. They will bring about a transformation in the existing traditional education model by promoting active learning in students and will enable students to move from an emphasis on knowledge memorization to knowledge application, analysis, synthesis and evaluation (Ahlulwalia, Gupta & Aggarwal. 2011: 30). An important aspect of pupil encounters with computer is the challenge to the traditional linear text created by the linking structures of hypertext. In other words, to understand the place of English within our school curriculum it is necessary to consider the world beyond school and the roles which language and texts
play in that world (Robinson, M. 1999). Students used the affordances of technology (e.g., social networking; applying multimodality to language learning; responding the issues through interactive, multimodal compositions) to think and to do rather than to merely employ technical skills (Lapp, D., Moss, B., & Rowsell, J., 2012: 376).

3. Research Method
This study was carried out in Higher Education of Economics Study (STIE Muhammadiyah) Jambi, Sumatra, Indonesia. A qualitative method survey studied exploring the lecturers’ perceptions, lecturers’ obstacles, and lecturers’ expectations toward the use of ICT in teaching. For this purpose, comprise 40 lecturers were selected as participants to this survey. The data was collected by questionnaire and interview. The questionnaire was ready made according to the technology acceptance model introduced by David, Bagozzi and Warshaw (1989).

4. Findings and Discussion
From observation through questionnaire, it can be seen from the following tables.

4.1 Perceived usefulness
Table 1 reported the lecturers’ perceived usefulness towards the use of ICT in teaching.

| Items No | Items Question                                      | SA (%) | A (%) | N (%) | D (%) | SD (%) |
|----------|----------------------------------------------------|--------|-------|-------|-------|--------|
| Q.1      | ICT is important in teaching                       | 62.5   | 37.5  | 0     | 0     | 0      |
| Q.2      | ICT increase students’ motivation                  | 50     | 37.5  | 12.5  | 0     | 0      |
| Q.3      | ICT makes learning more enjoyable                  | 12.5   | 50    | 0     | 37.5  | 0      |
| Q.4      | ICT makes learning more fun                        | 37.5   | 50    | 0     | 12.5  | 0      |
| Q.5      | ICT makes learning more interesting                | 25     | 62.5  | 12.5  | 0     | 0      |
| Q.6      | ICT makes learning more effective                  | 25     | 50    | 12.5  | 12.5  | 0      |
| Q.7      | ICT makes learning more diverse                    | 30     | 62.5  | 7.5   | 0     | 0      |
| Q.8      | ICT enhance my teaching performance                | 45     | 55    | 0     | 0     | 0      |

From the table above, it can be seen that all of lecturers deal with “ICT is important in teaching.” All of lecturers also deal with “ICT enhance my teaching performance”. It means all lecturers have positive perception towards the use of ICT in teaching. They believed that ICT is important and can add positive value to their teaching performance. Besides that, there were approximately 75%, of lecturers deal with “ICT increase students’ motivation”, ICT makes learning more fun, more interesting, more effective, and more diverse.” It means most of lecturers think that ICT can support their teaching and can help them to trigger the students’ motivation. As Cox (1999) and Cope and Ward (2002) claimed that technology can improve the presentation of materials and make the lesson more interesting for students as well. On the other hand, there were 37.5% of lecturers who stated that by using ICT in teaching cannot guarantee that learning can be enjoyable. It means to make enjoyable learning is not always can be achieved because of using ICT in teaching. It can be inferred that to make enjoyable learning, the lecturers used their own ways; it was not significantly by using ICT in their classroom teaching.

4.2 Perceived ease of use
Table 2. reported the lecturers’ perceptions on ICT ease of use.

| Items No | Items Question                                           | SA (%) | A (%) | N (%) | D (%) | SD (%) |
|----------|---------------------------------------------------------|--------|-------|-------|-------|--------|
| Q.9      | It is easy to use ICT when teaching                      | 17.5   | 45    | 5     | 32.5  | 0      |
| Q.10     | I know how to teach using ICT                           | 40     | 60    | 0     | 0     | 0      |
| Q.11     | I have easy access to technology I would like to use     | 35     | 65    | 0     | 0     | 0      |
Q.12 I have resources teaching using ICT 25 62.5 12.5 0 0
Q.13 I don’t have time to access ICT 0 0 0 62.5 37.5
Q.14 I need training in how to use ICT in teaching 45 30 0 20 5
Q.15 I need support when I encounter technical problems 87.5 12.5 0 0 0
Q.16 It is easy to control the class 12.5 50 25 12.5 0

From the data given above, it can be shown that all lecturers claimed that “I know how to teach using ICT, I have easy access to technology I would like to use, and I need support when I encounter technical problems.” It means that they believe they know how to use ICT in teaching and it is easy to access technology but they still need support and help when meet technical problems. In this institute, they provide assistant to be ready when lecturers need support and help when using computer and in-focus and when technical problems encountered. There were no lecturers stated that “I don’t have time to access ICT”. It means they were all easily has an opportunity to access ICT. Besides that, there were 87% of lectures argued that they have resources for teaching using ICT. It can be implied that ICT assisted to provide resources they need to complete teaching materials and ICT makes them being easy to find the supported materials they need. And there were 75% of lecturers confirmed that they need training in how to use ICT in teaching. Most of them need training; it can be seminar or workshop that provides them knowledge and practical exercise about using ICT. Moreover, there were 62.5% of lecturers reported that it will be easy to control the class. Meanwhile there were 25% of lecturers who don’t have idea about this. It is not always easy to control the class although integrate ICT into teaching. In addition, there were 62.5% of lecturers said that “it is easy to use ICT when teaching”. Although there were 37.5% of lecturers were disagree about using ICT when teaching is easy. It can be concluded that most of lecturers have positive perception that using ICT when teaching is easy but there were some lecturers who think that using ICT when teaching is hard for them.

4.3 Obstacles faced

Table 3. reported the lecturers’ obstacle that is faced in using ICT for teaching.

| Items No | Items Question | SA (%) | A (%) | N (%) | D (%) | SD (%) |
|---------|----------------|--------|-------|-------|-------|--------|
| Q.17    | Lack of technical support when things don’t work | 12.5   | 42.5  | 7.5   | 37.5  | 0      |
| Q.18    | Lack of time in campus day | 0      | 70    | 0     | 17.5  | 12.5   |
| Q.19    | Limited knowledge on how to make full use of ICT | 55     | 45    | 0     | 0     | 0      |
| Q.20    | Limited understanding on how to integrate ICT into teaching | 25     | 75    | 0     | 0     | 0      |
| Q.21    | Lack of software or website that support state standards | 20     | 30    | 32.5  | 12.5  | 5      |

From the data presented above, it can be depicted that all lecturers think that they have obstacles when using ICT in teaching, such as there were limited knowledge on how to make full use of ICT and limited understanding on how to integrate ICT into teaching. It can be assumed that those problems can be happened because they were accustomed to use traditional teaching method. And there were lack of training, seminar, or workshop that is held to improve lecturers’ capability to use ICT in teaching. Besides that, 70% of lecturers clarified that they have lack of time in campus. Based on observation, in this institute, most lecturers stayed in campus only for teaching except the lecturers who were in structural, they can stay longer in campus. It can be said that most of lecturers were lack of time to prepare ICT can be integrated in their classroom. Meanwhile, there were 50% of lecturers stated that
they have lack of software or website that supports state standards. Finally, there were 55% of lecturers who stated that they have lack of technical support when things don’t work. And 37.5% of lecturers claimed that they have no problems about this. It can be assumed this problem was not their main problem in terms of using ICT in teaching and learning activities.

4.4 Expectations

Table 4. reported lecturers’ expectations on using ICT into teaching.

| Item No | Items Question                                                                 | SA  | A  | N  | D  | SD  |
|---------|--------------------------------------------------------------------------------|-----|----|----|----|-----|
| Q.22    | I need teacher/experienced people to teach me how to use software or how to integrate ICT into teaching | 37.5 | 62.5 | 0  | 0  | 0   |
| Q.23    | I hope ICT can be used more often to help students in learning                  | 7.5  | 25  | 17.5 | 35  | 15  |
| Q.24    | I hope the use of ICT will provide students with more practical and useful knowledge.| 20  | 42.5 | 10  | 12.5 | 15  |
| Q.25    | I hope computers can be used to provide more interactive activities for students. | 40  | 60  | 0  | 0  | 0   |
| Q.26    | I hope the communication with their students can be easier after ICT is used.   | 75  | 25  | 0  | 0  | 0   |
| Q.27    | I hope to use computers to do more interesting and imaginative work.            | 67.5 | 32.5 | 0  | 0  | 0   |
| Q.28    | I hope the use of ICT will help me to teach more efficiently.                  | 12.5 | 17.5 | 25  | 37.5 | 7.5 |
| Q.29    | I hope an increased use of the computer will make the class more interactive. | 50  | 25  | 12.5 | 12.5 | 0   |

From the table above, it can be described that all lecturers hope computers can be used to provide more interactive activities for students, they also hope to use computers to do more interesting and imaginative work and they hope the communication with their students can be easier after ICT is used. It can be assumed that lecturers in that higher education school have big expectation towards the use of ICT in teaching especially in creating interesting and imaginative work, providing interactive activities and communicative interaction. Moreover, all lecturers need teacher or experienced people to teach them how to use software or how to integrate ICT into teaching. It can be inferred that they hope there is always support from the institute such as giving training or workshop to increase lecturers’ ability in using ICT for teaching and learning purposes.

Besides that, there were 62.5% of lecturers said that the use of ICT will provide students with more practical and useful knowledge. It can be implied most of lecturers there expect that teaching by using ICT can help them to facilitate students with more practical and useful knowledge especially for the relevant subjects for example; accounting, statistics, English, research method, and so forth. In addition, there were 75% of lecturers reported that they hope an increased use of the computer will make the class more interactive. It means that most of them expect that by using ICT such as attractive power point or kahoot tools could enhance the meaningful interaction in the classroom.

On the other hand, there were 50% of lecturers who claimed that they do not hope ICT can be used more often to help students in learning. It can be said that many lecturers in that higher education school were worry about the frequent used of ICT. Besides that, there were 45% of lecturers who admitted that they do not hope ICT will help them to teach more efficiently. It means that many lecturers do not promote ICT because of efficiency but it is more because of another reason.

Interview
To strengthen the result of this study, the researcher conducted the interview and here is the sample of the respondents’ interview as in the following.
ICT is very helpful to prepare teaching materials such as I can find the current issue related with the topic discussion. I can find supported resources easily through the internet.

I hope the server in campus can be better so lecturers and students can be facilitated and easier to access the internet. During this time, we use individual hotspot.

I hope this institution will held more the workshop about using ICT in teaching. During this time, the institution held three times workshops and the topics were using kahoot as web tool for teaching, creating interesting power point, and using google form in teaching.

I had tried facebook group in teaching but I think it was hard to control the class. Consequently, I would rather teaching in the classroom than teaching online learning.

ICT makes the class lively. I can provide visual and sound effect to achieve teaching and learning purposes.

I think it is helpful for me to know the current issue so it can be said that I always read via online about the news happening before I come to the class especially in teaching economic studies.

I hope by using ICT, my teaching performance can be better and my students will like it. I hope they can enjoy my class.

It is hard for me when I got technical problem and no one can help me for example when I would like to present my power point then my laptop did not suit with in focus consequently the presentation was cancelled.

I can motivate students easily by using ICT for example give the time for them to watch pieces of movie or slide shows that are able to trigger their motivation.

I hope can be accustomed to use ICT into my teaching in order to teach the millennial generation so that my teaching method will be not left behind.

5. Conclusion
From the findings and interpretation that are discussed above, it can be concluded that first of all, the perception of lecturers toward perceived usefulness of ICT in teaching were the lecturers in this higher education have positive perceptions with the statements; ICT is important in teaching, it enhances lecturers’ teaching performance, and it increases students’ motivation, it makes learning more fun, more interesting, more effective, and more diverse. On the other hand, there were 37.5% of lecturers who stated that by using ICT in teaching cannot guarantee that learning can be enjoyable.

Secondly, the perception of lecturers toward perceived ease of use of ICT in teaching were the lecturers have positive perceptions with the statements “I know how to teach using ICT, I have easy access to technology I would like to use, and I need support when I encounter technical problems.” In line with this, there were no lecturers stated that “I don’t have time to access ICT”. Besides that, there were 87% of lecturers argued that they have resources for teaching using ICT. And there were 75% of lecturers confirmed that they need training in how to use ICT in teaching. Moreover, there were 75% of lecturers reported that it will be easy to control the class. In addition, there were 62.5 % of lecturers said that “it is easy to use ICT when teaching”.

Thirdly, the obstacles in using ICT for teaching were all lecturers think that they have obstacles when using ICT in teaching, such as there were limited knowledge on how to make full use of ICT and limited understanding on how to integrate ICT into teaching. Besides that, 70% of lecturers clarified that they have lack of time in campus day. Meanwhile, there were 50% of lecturers stated that they have lack of software or website that supports state standards. Finally, there were 55% of lecturers who stated that they have lack of technical support when things don’t work. And 37.5% of lecturers claimed that they have no problems about this.

And the last, the expectations of lecturers in using ICT for teaching were all of lecturers hope computers can be used to provide more interactive activities for students, to do more interesting and imaginative work and communicate with their students can be easier after ICT is used. Moreover, all lecturers need trainer to teach them how to use software or how to integrate ICT into teaching. Besides
that, there were 62.5% of lecturers said that the use of ICT will provide students with more practical and useful knowledge. In addition, there were 75% of lecturers reported that they hope an increased use of the computer will make the class more interactive. On the other hand, there were 50% of lecturers who claimed that they do not hope ICT can be used more often to help students in learning. Besides that, there were 45% of lecturers who admitted that they do not hope ICT will help them to teach more efficiently.

6. Implication of ICT used in Teaching

From this research it can be necessary for stakeholders to know lecturers’ perspectives toward the use of ICT in teaching and draw the obstacles so it can be limited and also accommodate lecturers’ expectations toward it in the teaching and learning activity so lecturers and students have a great deal towards the use of ICT to promote and meet the teaching and learning purpose. This study can be preliminary study for the future research. The researcher recommends that for the future research to do the observation to investigate how teaching and learning going in the class by taking notes and taking picture or video besides giving questionnaire and interview in order to see the implication of ICT in teaching.

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