

**THE IMPLEMENTATION OF ICT INTEGRATION IN TEACHING ENGLISH
BY HIGH SCHOOLS TEACHERS IN RELATION
TO THEIR STUDENTS' ENGLISH ACHIEVEMENT IN KOTA BENGKULU**

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ABSTRACT

The main purposes of study were to know the teachers' understanding about ICT and its implementation in their instructional practice and the possible problems faced. Then, was there any correlation between teachers' understanding about ICT and its implementation to the students' achievement. The other purpose was to see whether the use of ICT influenced students' achievement in Bengkulu. The sample consisted of 172 senior high schools English teachers and 438 tenth grade students. The data of this study were gained through the instruments: questionnaire, observation, test and interview. Data analysis was done in two stages. The result of this study showed that the implementation of ICT integration in teaching English by senior high school teachers in Kota Bengkulu had been started but it was still in the level of less favorable in all phases of instructional practice (planning, implementing, evaluating and reflecting). There were many problems faced by the teachers in integrating ICT in their teaching practice in terms of internal problems and the school policy.

Key words: Implementation, ICT Integration, teaching, learning, English, technique, teachers, students, students' achievement.

ABSTRAK

Tujuan utama penelitian ini adalah untuk mengetahui pemahaman guru tentang TIK dan implementasinya dalam praktik instruksional dan kemungkinan masalah yang dihadapi. Lalu, adakah korelasi antara pemahaman guru tentang ICT dan implementasinya terhadap prestasi belajar siswa. Tujuan lainnya adalah untuk melihat apakah penggunaan TIK mempengaruhi prestasi siswa di Bengkulu. Sampel terdiri dari 172 guru bahasa Inggris tingkat SMA dan 438 siswa kelas sepuluh. Data penelitian ini diperoleh melalui instrumen: kuesioner, observasi, tes dan wawancara. Analisis data dilakukan dalam dua tahap. Hasil penelitian ini menunjukkan bahwa penerapan integrasi TIK dalam pengajaran bahasa Inggris oleh guru sekolah menengah atas di Kota Bengkulu telah dimulai namun masih dalam tingkat kurang baik dalam semua tahapan praktik instruksional (perencanaan, pelaksanaan, evaluasi dan refleksi). Ada banyak masalah yang dihadapi oleh guru dalam mengintegrasikan TIK dalam praktik mengajar mereka dalam hal masalah internal dan kebijakan sekolah.

Kata kunci: bahasa Inggris, Implementasi, Integrasi TIK, pengajaran, pembelajaran, , teknik, guru, siswa, prestasi belajar siswa.

INTRODUCTION

In the last ten years, educational circles have witnessed a dramatic shift from seeing the computer as the source of supplementary educational material to treating it as a platform where effective teaching/learning can be promoted (Warschauer, 1996). Computer-assisted teaching and learning has become increasingly indispensable components of mainstream education. This was particularly true for language teaching and learning. With the recent advances in the computer technology, especially in terms of the internet, authentic target language was no more than a click away. The internet offers large amounts of authentic language in many languages. Given the improving accessibility of the online materials, language learners all around the world now have better choices as to what language to study, what language material to focus on and how to individualize progress.

There were several reasons why this research should be done. First of all, recent technological advances support the reason why integrating ICT into the ways of teaching language should be paid attention to. Recently, ICT can be used for supplementing and reinforcing what was done in the classroom as well as providing rich opportunities whereby students can start learning languages on their own. Moreover, students generally have positive feelings about learning languages via the internet (Cameron, 2005:61). For example, Kung and Chuo (2002) conducted a study of student attitudes towards learning English through internet. Despite some difficulties encountered,

they found that students had an overall positive attitude to using the teacher-selected websites in their learning of English. A follow-up study conducted a year later after the initial study with the same group of learners found that students' positive feelings about web based learning were still strong. Second, the internet facilitates individualization of instruction and introduces a more interesting platform to learn by incorporating multimedia into the process (Soboleva & Tronenko, 2002). Third, it enhances the accessibility of information, language materials in this case, as well as offering various ways to connect with the target speech community (Warschauer, 1996).

Adimphrana (2005) revealed that to solve the problem of the low ICT level in education in Indonesia, some ICT trainings for teachers have been conducted by the government and Microsoft Indonesia Corporation. He states that the trainings were aimed at reaching some objectives. They are: (1) In 2007: 10% teachers can work with computer. (2) In 2008: 25% teachers can work with computer, 10% teachers can make a learning module based on multimedia.(3) In 2009: 45% teachers can work with computer, 15% teachers can make a learning module based on multimedia, 5% teachers can make a learning media based on web in internet. (4) In 2010: 65% teachers can work with computer, 20% teachers can make a learning module based on multimedia, 10% teachers can make a learning media based on web in internet, and 5% teachers can manage for distance learning class system based on ICT (Multimedia, Web, Radio, and TV).

Research Questions

There are three research question in this study, they are :

1. How are the teachers' knowledge of implementation of ICT Integration in their instructional practice?
2. How do EFL teachers integrate ICT in their instructional practice?
3. What problems were faced by the teachers in implementing ICT in their instructional practice?

LITERATURE REVIEW

The changing global economy and the rapid development of ICT have resulted in the critical need for students to possess new 21st century knowledge and skills (Warschauer, 2000a). For example, the report of *enGauge 21st Century Skills for 21st Century Learners* (2003) proposed four skill clusters, digital-age literacy, inventive thinking, effective communication, and high productivity, which were critically needed to succeed in the 21st century: First, *Digital-Age Literacy* includes: (a) basic scientific, economic and technological literacies; (b) visual and information literacies; and (c) multicultural literacy and global awareness. Second, *Inventive Thinking* was composed of a series of life skills such as (a) adaptability and managing complexity; (b) self-direction; (c) curiosity, creativity and risk taking; and (d) higher order thinking and sound reasoning. Third, *Effective Communication* consists of (a) teaming, collaboration, and interpersonal skills; (b) personal, social and civic responsibility; and (c)

interactive communication. Last, *High Productivity* involves skills that increase one's chance of success in the workforce, such as (a) prioritizing, planning and managing for results; (b) effective use of real-world tools; and (c) ability to produce relevant, high-quality products.

The technology revolution in today's information society brings us a new opportunity to get involved in every aspect of life and "raises the bar on the competencies" demanded in the 21st century (North Central Regional Education Laboratory, Kellner, 2000). Moreover, the concept of literacy has evolved and dramatically expanded due to rapid social, cultural and technological changes of the time (Warschauer, 2001).

Teaching English was the combination of science and skills. It was an art because it relies on the teacher creative provision of the possible learning environment and activities for his/her students (Saleh, 1996:15). It also states that teaching was a system of an ordered set of ideas and methods use by the teacher in doing his/her job.

Teaching can be carried out through two ways, deductive and inductive way. In inductive way of teaching in which learners were taught rules and given specific information about language, they then apply these rules when they use the language. And in inductive way of teaching in which learners were not taught grammatical or other types of rules directly but were left to discover or induce rules from their experience of using the language.

It was increasingly assumed that we were entering a ubiquitous computing era. As might be expected, a ubiquitous network society will define the time in many ways, especially in technologically advanced countries. Accordingly, it was more than a decade ago when Mark Weiser introduced the vision of ubiquitous computing, roughly the opposite of virtual reality, which forces the computer to live out here in the world with people functioning invisibly in the background, and enables people move around and interact with computers (Hui, 2005; Toporkoff, 2005).

Weiser (1991) predicted that computers would disappear into the background and become a part of the natural human environment, just as people use things without thinking after learning sufficiently. Likewise, Oblinger (2005a, 2005b) indicated that, for the Next Generation, technology itself has disappeared. In fact, when asked about what kind of technology they used, members of the Net Generation were puzzled by what the question really meant. Instead, they came up with what they could do with technology (Oblinger, 2005a). It was quite apparent that today's college students have been surrounded by and permanently connected with information technologies. Moreover, they interact with digital media almost everywhere, and using those media becomes a second nature. In short, they take technology for granted as a central part of their lives (Frاند, 2003; Kvavik, 2005).

Research reports indicate that factors influencing technology integration by school were diverse (Brown, 2000 Sugar, 2002). Ertmer

(1999) states that the barriers include organizational and pedagogical concerns, technical and logistical issues, and personal problems such as fear. Rogers' theory of innovation adoption (1995) consists of five attributes: relative advantage, compatibility, complexity, trial ability, and observe ability. He found that 49 to 87 percent of the variance in the adoption rate of innovation could be explained by these five attributes. Other variables were types of innovation decisions, communication channels, nature of social system, and the extent of change agents' promotion efforts.

Park (2003) incorporated seven variables from three perspectives in his study. The results showed that computer experience, subjective norm, self-efficacy, relative advantage, and complexity were important predictors of the level of Web-assisted instruction. Time and support, however, indicated no significant effect, which contradicts Park's qualitative findings. When teachers feel seriously uncertain about performing tasks or have doubts about their performance achievement, they were unlikely to try innovation and they were unwilling to put much time and effort into it (Park, 2003).

The integration of ICT in education in Indonesia based on the Presidential Decree No. 6/2001 (Guidelines for the Development and Implementation of ICT in Indonesia). The decree was supplemented by a detailed five-year action plan, which specifically sets out an ICT plan for education that includes the following areas as priorities:

1. Collaboration between the ICT industry and ICT educational institutions (2001-2005);
2. Development and implementation of ICT curricula (2001-2004);
3. Use of ICT as an essential part of the curricula and learning tools in schools, universities and training centre (2001-2005);
4. Establishment of distance education programs. Facilitation of the use of Internet for more efficient teaching and learning (e.g. School 2000 or SMU 2000, which started in 1999).

Unfortunately, those priorities have not yet been fully implemented because of unrest in Indonesia (Belawati, 2005).

Indonesia was one the largest of the ASEAN countries with a population of over 210 million. The area of the country was mostly water (81 per cent with the land divided into 33 provinces, 268 regencies, 73 municipalities, 2,004 sub-districts and 69,065 villages). Despite the economic crisis which started in 1997, Indonesia has progressively increased its telecommunication network over the last decade, (Belawati, 2005).

Moreover, Belawati in her paper, (Indonesia, ICT Use in Education, 2005) stated that the growth of ICT users in Indonesia within the last two years has been phenomenal, increasing from around two million in 2000 to over four million in 2002. The Indonesia Internet Service Provider Association (APJII) expects this number to increase up to 7,550,000 by the end of 2003 due to the expansion of Internet access points provided by Internet kiosks (known as

WARNET), which were mostly owned by private business enterprises. A survey conducted by APJII showed that about 43 per cent of users access Internet from WARNET (APJII cited in International Telecommunication Union, 2002). The rest access the Internet from offices (41 per cent), homes (12 per cent), and schools/universities (four per cent).

In educational practice, ICT use in Indonesia was still in the initial stages. It was estimated that in 2002, about 2,500 educational institutions were Internet users of some kind, 80 per cent of which were secondary schools and the other 20 per cent higher education institutions.

A survey conducted by the Centre for Information and Communication Technology in Education (PUSTEKKOM) of 10 senior secondary schools in Jakarta found that all the schools had a policy to add computer studies to the curriculum. The main purpose was to encourage students to use computers and the Internet to search, gather and process information to support their learning. The content of the course included MS Word, MS Excel and MS PowerPoint, Photoshop, Corel draw Office, and Internet (search engines, e-mail and mailing-lists).

Limited time and heavy workload may inhibit teachers from implementation. Teachers want to know if they can integrate the computer technology with education in ways that effectively link with the content of curriculum as well as the different components and stages of the learning process. In one study, teachers expressed a need for understanding the potential

of technologies and the appropriate pedagogy for technology integration with regard to the fit of each with their personal philosophies of teaching and learning (Weasenforth, BiesenbachLucas, & Meloni, 2002).

Research reveals that there were a variety of administrative challenges and complicated problems facing teachers in all areas including language instruction in computer technology application. Understanding organizational culture was crucial for institutional change (Finley & Hartman, 2004). Three barriers that keep college leaders from establishing an environment that allows teachers to take advantage of technology resources include the needs for appropriate 1) planning and budgeting for instructional technology, 2) organizational structures and communication, and 3) school rewards and incentives (Epper, 2001:9).

Some studies show the impact of ICT integration on student achievement. Balajthy (2000: 205) stated that seventy-eight percent of teachers report that they have seen evidence of achievement gains due to computer use. Ninety-five percent believed that the achievement of low-performing students can be enhanced by computers. Bangerst and Drown's (1993) mentioned that survey of computer based activities for writing indicated clear benefits. Bowman (1998) reported on a project targeting the lowest performing third graders in an urban school, combining one-on-one tutoring and mentoring with computer-assisted program that gave frequent feedback and continuous progress reports. Reading scores improved one full grade

level during the 3-months project. One of the most comprehensive studies of online courses was conducted by Hiltz and her colleagues at the New Jersey Institute of Technology with the EIES system developed there (Hiltz, 1994 in Kearsley, 2000). These studies involved undergraduate course in sociology, English composition, management, computer science, and statistics. Evaluation measures included pre-test and post test course questionnaires completed by students, comparison of scores or course grades, direct observation of online activities, interviews with students, and faculty reports. The Hiltz findings include the following:

1. Mastery of course material was equal or superior to that of conventional classes.
2. Students reported improved access to professors and educational experiences.
3. Student participation in courses increased.
4. Students reported higher satisfaction with courses.
5. Students' ability to synthesize information and deal with complex issues/ideas improved.
6. Level of interest in the subject matter of courses increases.

METHODOLOGY

In this study the researcher used mixed methods research. It was empirical research that involves the collection and analysis of both qualitative and quantitative data. In mixed methods research, qualitative and quantitative methods and data were mixed, or combined in some way. A single study that combines

qualitative and quantitative data was mixed methods, but the term can also refer to several studies that combine both types of data (Creswell and Plano, 2007). In order to get the quantitative and qualitative data of this study, the researcher will use questionnaires, test, observation and interview.

In collecting the data, a survey was conducted. A written questionnaire, test, observation and interview were administered. No treatment was involved. The responses of the respondents to the questions were summarized, analyzed and reported (Wallen & Fraenkel, 1991:290). Two stages random sampling techniques are used in terms of subject of this study:

- a. In deciding the schools to be investigated, the researcher will use purposive sampling. The researcher will select the senior high school that have been accredited 'A' and 'B' by the Accreditation Board (BAN-Dasmen). There were 28 accredited Senior High Schools in Kota Bengkulu. These schools were public and vocational schools, public and private schools.
- b. In selecting the teachers as respondent, all teachers (permanent teachers) were considered as respondent given questionnaires (172 teachers as respondent). After they completed the questionnaires, the writer selects some of them as the sample to be observed. The writer selected the teachers to be observed on the basis of the school status where they teach: private and public,

and public and vocational. So that 15 teachers as respondents were observed.

- c. For the students as respondent, the researcher tested all students from the 15 class observations, so the total students as respondents were 438.

The data was taken by using two kinds of instruments. The main data was collected by main instruments: questionnaire, test, and observation. The supporting data was taken by supporting instrument: the interview. Administering the supporting instruments were the other two techniques that was used in case the data or information obtained from questionnaire needs to be rechecked or to obtain further information.

The survey instruments were developed to address the research questions stated in the previous section. In this study, the researcher used questionnaires, tests, and qualitative interview and lesson observation guidelines as the instruments in order to investigate the implementation of ICT integration for EFL teachers in the teaching and learning process at senior high school in Kota Bengkulu.

For this research, two sets of questionnaire were used. One set was used to collect data in order to find out the extent to which basic principles underlying ICT integration have been implemented by the teachers in their own teaching (Appendix 1.). The second set was used to collect data in order to find out the extent to which teachers encounter problems in implementing basic principles of ICT integration (Appendix 2.). All the questionnaires were

piloted by researcher and will be shared to 172 high schools English teachers as respondent.

The research subjects' answers to the questionnaire items were cross-checked with the information found in the documents of observation checklists and interview: whether they were in line or in contrast with the answers so that the final score for a particular questionnaire item could be determined.

The second problem (How do EFL teachers integrate ICT in their instructional practice?) will be investigated by using *questionnaire A*. The questionnaires that were given to the participants perhaps covered how they integrate ICT into four phases of their instructional cycle: planning, implementing, evaluating and reflecting (Watts Taffe, 2007:31).

Questionnaire B was to answer the third problem of this study (problems faced by the teachers in implementing ICT in their instructional practice). It was conceptually defined as the extent to which there exist problems that hinder teachers to put the principles underlying implementation of ICT integration into their own real teaching practice. The aspects presumed to underlie this among others include: (a) the teachers' internal problems concerning of ICT integration; and (b) national or school policy concerning the implementation of ICT integration in schools.

The observation was also conducted in order to further check whether what was found in questionnaire was confirmed by the relevant documents such as the teachers' teaching plan, implementation, reflection and evaluation.

To score the observation check lists, the writer gave 1 point for each thick, the higher score they got indicates the higher level of the teachers' integrating ICT in the TL process. The writer divided the score into four categories; excellent, good, average and poor.

In conducting observation, not all teachers as respondent were observed. Out of 172 high schools English teachers in Kota Bengkulu, only 15 teachers as respondents were observed. The researcher was recorded the class activity by using the camera.

The writer administered a test for the students as respondents to see their English achievement. 438 students as respondent were tested. They were taken from 15 class observation of 15 teachers as respondent. The test was administered at the end their school year. The result of the test will be used as the quantitative and qualitative data for the writer to interpret the significant effect of ICT integration to the students' English achievement. The English test used in the study was ready-made test taken from *Link to the World I* and *Look Ahead* published by Yudhistira and Erlangga (see Appendix 6).

In this research, the writer interviews the respondents. Not all teachers as respondent will be interviewed. Qualitative data collection via interviews serves several purposes: These participants' replies allow insight into different levels of ICT and allow the researcher to understand how these respondents have applied ICT, and whether the results corroborate the findings from previous studies. Their replies also

allow the researcher to explore whether there were other factors that influence respondents use of ICT (than those included in the literature) and to determine participants' purposes for using ICT.

The interview also will use if the information or data obtained from the questionnaires and the test were needed further information or clarification. If there was no clarification needed about the data or information obtained from the questionnaire, interview was not necessary. In other words, it was used whenever it was necessary for further information and or triangulation. The reason for that was that the interviews with the research subjects turn out to be very difficult because research subjects were hardly willing to spend time to be interviewed. They seem to be very busy with their end-of-school year routine activities. The qualitative interview questions were developed based on reviewing literature and on the research questions. The researcher consulted experts in the fields of both language and technology to revise the qualitative interview questions.

Data Collection

In this survey, the data was collected in the following steps:

1. Distribution of the questionnaires

After getting the permission from each school, the questionnaires (see appendix 1 and 2) were distributed to the 172 teachers as respondent in 28 different schools at the same day. The researcher collected them in

the following day. At the same time the researcher asked the respondents permission to observe their teaching practice based on the schedule of their English class.

2. Conducting the observation

On the time scheduled, the researcher conducted the lesson observation. The observation based on the lesson plan of the respondents. It was 2-3 class meetings to observe the class activities based on the lesson observation guidelines (see appendix 4.) and digitally recorded. The observation was only conducted only for 15 selected teachers. The researcher did the observation in 2 months, starting from May - June 2010.

3. Interviewing the respondents

Some questions were asked to the respondents while conducting the observation related to the ICT usage. The interview only administered if the researcher need further information or to confirm unclear information gained from the questionnaires and the observation, or if the researchers needed additional information related to the implementation of ICT in one school.

4. Administering test for students

The ready-made English was administered to 438 students from 15 class survey. The students were tested in the end of school year or after finishing the total meetings of the English class.

FINDINGS AND INTERPRETATION

Based on the data gained, it showed that the teachers' knowledge of ICT integration in the instructional practice was under average. From

the observation, the writer assumed that most of respondents were lack of skills in using available ICT devices in schools and unfamiliar with the program or the software on them. The lack of knowledge of ICT devices and software made them reluctant to integrate ICT in teaching practice. However, for teachers, the reasons and the ways of using ICT in the classroom were underpinned by their overall pedagogical vision, knowledge and competence.

It has been figured out how EFL teachers in Kota Bengkulu integrate ICT in their teaching practice. The four phases of instructional cycles: planning, implementing, evaluating and reflecting, in the aspect of planning the teachers were ready enough to integrate ICT in their teaching practice. Basically, most of them have favorable knowledge and skills of ICT, since most of them were familiar with the computer and were able to use it to prepare their lesson units and materials for one-semester teaching practice. Some of them were also familiar with the internet access and able to search the additional materials for their teaching. Moreover, some of them planned to use Microsoft power point in realizing their lesson plan in the classroom.

However, in the aspect of implementing, not all the teachers' planning could be applied. These teachers integrated ICT in the aspect of implementing. The barriers encountered when they wanted to integrate ICT in their teaching and learning process. Lack of skills in ICT, lack of supporting facilities, school regulations were some of these barriers. The additional

information which was gained through interview and observation showed that even though the facilities or the ICT tools were available in one school, they could not be operated because of the lack of skill of the teachers so that the teachers were feared to touch the tools in multimedia language laboratory for instance. Moreover, since the multimedia laboratory was new, the officials did not allow the teachers to bring their students there because they did not want the hardware to be broken. Another example was that these teachers could not display the slide they made because of the LCD projector was not able to operated due to the un-sufficient of electricity. In short, there was only one projector available for all subjects.

In the aspects of evaluating and reflecting, lack of teachers' skills and competences in using the computers or in operating one program of computer were also the obstacles in evaluating and reflecting aspects. For instance, instead of using the complicated program of Microsoft excel, they make the tables manually by using paper and ruler.

In term of internet access, some public or private schools in Kota Bengkulu, have facilitated their schools with free hotspot area. The icon of 'cyber-school' or 'free access school' indicated that these schools served the internet access freely. Some teachers have made use of the access for searching the supplementary resources or materials for teaching and learning process or used it for making a link among them. But no one has used it for online teaching or online testing. In line with the local government

program (SIAP Online), only few of them could access the information or gather the link data-based among schools or other educational institutions. In other words, the program has been failed to facilitate the needs of educational institution and stakeholders in terms of online-educational information.

Related to the problems faced by teachers in implementing ICT integration into teaching and learning process, the researcher divided the discussion into two issues. The first issue was the national or school policy concerning the implementation of ICT integration in schools. There were several problems faced by the teachers. The main problem was in terms of facilities to support the ICT integration in the classroom. In fact, most of schools which were involved in this study: the accredited A and B schools did not have any problems in terms of the availability of the ICT tools. Concerning to the implementation of ICT integration in schools, the availability of the devices was supported by the government or schools owner. It can be seen from the facilities that were provided by the schools. Almost all of the schools had language laboratories with a simple to the very sophisticated way of operation. However, in terms of the school regulation, the lack of awareness from the decision maker or low political commitment to the importance of ICT usage in education field had made the tools useless. The findings of this study were related to the research reports indicated that factors influencing technology integration by school were diverse. The research stated that the barriers

included the organizational and pedagogical concerns, technical and logistical issues, and personal problems such as fear. (Brown, 2000 Sugar, 2002 and Ertmer, 1999)

The result of the study showed that many problems faced by the teachers to integrate ICT in their teaching practice in terms of their personal or internal problems.

The result of the study indicated that the implementation of ICT integration for most of EFL High Schools teachers in teaching practice were slowly moving from Stage 2 to Stage 3, but that full integration of technology into the FL curriculum had not yet been achieved.

In integrating ICT into teaching learning process, teachers should not have been only knowledgeable but also skillful. Their knowledge of both the program and the devices (software and hardware) was less favourable. It can be seen from the low ability in integrating ICT in teaching learning process.

Training of using the ICT devices should be facilitated by schools and government since it would be one of the solutions to minimize the barriers faced by the teachers in teaching practice. It may take a variety of different forms, e.g. teachers might take time off to follow an intensive course, or they may be funded to attend conferences or seminars, in order to update their knowledge. Above all, training for language teachers has to address their specific needs. Continuing the analogy of the driving test, many teachers perceived ICT training as a one-off event: once one has learned to "drive" a computer she or he doesn't need any further training.

Anyhow, computer technology changes so rapidly that constant and regular training was essential. The recommendation and action that teachers should follow as an ICT training was to increase their knowledge about 30% hardware, 30% software, 30% skills training and materials development and 10% continuity.

As the result of this study based on responses of the questionnaires, observation, and interviewed, the researchers concluded that ICT were necessary for both teachers and students in the process of teaching and learning in terms of:

1. Called for and facilitated more independence on the part of the learner, more self-directed activities and the organization of learning processes.
2. Encouraged interactive work;
3. Facilitated direct feedback;
4. Called for a change in the role distribution of teacher / learner, where learners take on teaching functions
5. Was enable contents to be continually updated with minimum efforts;
6. Provided faster access to teaching materials.
7. Provided greater opportunities for individual forms of learning;
8. but also demanded more social learning in group and team work;

Furthermore, it was emphasized that the implementation of ICT integration in teaching and learning process was not automatically lead to a new culture of learning, but simply offer the opportunity for change. Teachers' attitudes to the usage and beneficial of ICT integration and appropriate concepts for their use and for the

orchestration of learning would decided whether the desired outcomes could be achieved and whether a major shift in the culture of learning was possible.

However, ICT integration in the teaching and learning process also would give the unexpected effects when it was not used properly, so that the teachers dealing with the ICT knowledge, competencies or skills and the capabilities to integrate it in teaching and learning were recommended not only integrated ICT in their teaching and learning process but also should paid attention to the following consideration, such as:

1. Recognize the individual learning problems of learners in terms of ICT integration ;
2. Make a careful and considered choice concerning the use of ICT;
3. Check the truth of information content offered by ICT;
4. Develop efficient search techniques and be capable of conducting effective research with the help of the ICT tools or devices;
5. Be able to use standard software confidently and competently;
6. Make wise and critical choices of information found in the internet.

Related to the students' achievement, in which it was found that there was not significant correlation between students' achievement and teachers' knowledge in implementation of ICT integration. Moreover, the coefficient correlation was relative small (18.9%). The result also

showed that the implementation of ICT integration in teaching practice to the students' achievement had very small effect based on the R square analysis (2.5%). This means that the influenced of teachers' knowledge and how they implemented the ICT integration in teaching practice to the students' achievement was really low.

The finding of this study was relevant to the result of research done by Diem (2009), presented at the seminar of BAP/SM Provinsi Sumatera Selatan on October 15, 2009. In which it was stated that among four of education standards, the standard of teacher only gave 01.7% contribution on the competence of graduate. The most influenced was by the standard of content (37.8%), followed by the standard of process (3.6%).

Moreover, this finding was also relevant by the data stated by UNESCO Institute for Statistics (2009), which was adapted from UNCTAD (2007). The data showed there were three levels of integration in education system. The achievement of the students can be considered successful if the level of the ICT was in e-impact, the highest level of ICT (see Appendix). It means that two levels of ICT should be exceeded (e-readiness and e-intensity) to get the students' achievement. Since ICT in Indonesian education system was still in the first level, the correlation between the students'

achievement and teachers' knowledge could not be validated.

Furthermore, the indicators of ICT integration in education (see Appendix) stated that many factors that should be possessed by educational institutions, if they want to integrate ICT to their school system. Based on the survey, it was found that all indicators were less favorable. Therefore, the effect and correlation between students' achievement and teachers' knowledge and how they implemented the ICT integration in teaching practice were not significant.

CONCLUSION

It was concluded that the implementation of ICT integration in teaching English by senior high school teachers in Kota Bengkulu has been started but was still in the level of less favourable in all phases of instructional practice (planning, implementing, evaluating and reflecting). There were many problems faced by the teachers in integrating ICT in their teaching practice in terms of their internal problems and the school policy. The teacher knowledge, skills and competences in integrating ICT into their teaching practice was also low. It caused the low correlation between the teachers' knowledge on the students' achievement and the small effect of the implementation of ICT integration in teaching English to the students' achievement.

Based on the data during the survey and the data from all instruments used, the researcher

concluded that there were some factors that should be paid attention by teachers, schools, and government, not only to encourage the integration of ICT in teaching and learning process, but also to get the impact of it in relation to the students' achievement.

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