

CHAPTER II

REVIEW OF THE RELATED LITERATURE

This chapter deals with the theories related to the research of the problems. The theories are about tests including the Computer Based Test (*CBT*) and National Examination. In addition, the theories about senior high school including curriculum and subject will be discussed. Next theory is about teacher's practices that include teacher's practices in preparing the English materials and teacher's practices in preparing the computer skill. The last is about previous studies related to teacher's practices for preparing the computer based national examination.

A. Test

Test is a part of assessment. According to Wiggins (1998:78), the aim of assessment is primarily to educate and improve student's performance, nor merely to audit it. Here, the assessment should not be the judgement for students whether they pass or fail in learning process. Besides, test is prepared administrative procedure that occurs at identified times in a curriculum when learners master all of their lessons to offer peak performance, knowing that their responses are being measured and evaluated (Brown, 2004:231). So, the test is a part of assessment and the assessment is a part of teaching.

Based on National Examination Standards Operating Procedure Year 2016/2017, in English Computer Based National Examination, there

are 50 items, consist of 15 listening comprehension task items, 15 reading items for deaf students and 35 items of multiple choice. Time allocation for doing the test is 120 minutes (Kementerian Pendidikan dan Kebudayaan Indonesia: 2016).

1. Computer Based Test (CBT)

Computer is becoming an essential part of human everyday life, requiring most of the population to become skilled in the use common Information Technology (IT) tools such as word processors and spreadsheets (Brown, Bull, and Race, 2003:129). From here, computers are used almost in every public places such as companies, hospitals, airport, library, universities, schools and other places.

Computer based test (also known as computer assisted or web based test) are small-scale “home grown” tests available on websites (Brown, 2004:14). In the early years of *CBT* many fairly basic design issue baffled testing companies and states as they sought to transfer paper and pencil test onto a computer based platform (Ripley, 2009:115). The computer based exam could be delivered on a stand-alone personal computer or within an isolated Local Area Network (LAN) or use online technologies, such as web-pages over the internet (Taylor, 2005:47). Nowadays, computer based tests have been used in many countries, including Indonesia.

Computer based examination is the form of assessment in which the computer is an integral part of question papers’ delivery,

response storage, marking of response or reporting of result from a test or exercise (Whittington, Bull and Danson, 2000:77). Computer based examination can be used to promote more effective learning by testing a range of skills, knowledge and understanding. Accessing and managing of information and managing and developing communication skill are possible to assess online which cannot be assessed in regular essay based examination (Brown, Bull and Race, 2003:123). Then, according to Bodman and Robinson (2004:86), computer based test offers several advantages over traditional paper and pencil or paper based. Technology based assessment provide opportunities to measure complex form of knowledge reasoning that is not possible to engage and assess through traditional method. It is also important that sitting a computerize assessment in a non IT-based subject should require nothing more than very basic computer skill such as maze navigation and clicking procedures (Brown, Bull and Race, 2003:223).

In 2017, all of schools from Junior High School until Senior High School use this National Examination as one of examination method. According to Brown, Bull and Race (2003:93), from the teacher's point of view, the most meaningful way to test the utility of computer based assessment may be to compare it with what existed before. In national examination there are two methods of testing. First, Paper Based Test and second, Computer Based Test. Based on National Examination Standards Operating Procedure 2014/2015 from BSNP,

Paper Based National Examination or Paper Based Test (PBT) that hereinafter called UN-PBT is an examination system in National Examination that uses exercise sheets and National Examination Answer Sheet (NEAS) paper based (Kementerian Pendidikan dan Kebudayaan Indonesia: 2014). Meanwhile, Computer Based Test National Examination system uses computer system.

a. Benefits and Drawbacks of Computer Based Test (CBT)

Based on the National Examination Policy Changes from Indonesian Educational and Cultural Minister, there are two main benefits of *CBT*. First, it improves quality, flexibility and reliability of national examination. Second, *CBT* is expedite the procurement process of national examination that faster and more detail for students, parent and schools. Then, the other benefits of *CBT* is that is also helps the students start the national examination on time and less time to work on grade manually and written report for teachers. There is no need logistic work such as distributed the answer sheet, save the paper, test participant also could see the result faster. According to Davey (2011:37), the random form of items in *CBT* also more secures because the students cannot cheat their friend's work. Moreover, based on Kozma (2009:35) there are also other advantages of *CBT* such as reducing cost, increasing adaptability to individuals, giving opportunity to collect process data on student performance, providing the modern practice and feedback data.

Although *CBT* has some benefits, it also has some drawbacks. Based on Dunkel (1991:21), the use of *CBT* also concern on the high skill of computer hardware and computer. Moreover, time is also one of *CBT* drawbacks. Sometime is required for introducing examinees with the computer before test. In other word, the examinees have to be familiar with computer before *CBT*.

According to Kozma (2009:87) there are two main challenges of *CBT*. First challenge is the use of digital technologies including the need to choose between standard and “native” application and the need to integrate application and system. Then, using *CBT* also needs to deal with security of data and there are limited examples of high-quality assessment supported by digital technologies. Second challenge is methodological challenge. Methodological challenges contain some aspects, first, the extent of equivalence with paper-pencil. Then, the others challenges are the design of appropriate complex tasks, making efficient and reliable high-level professional judgement, and scoring student’s process and kegiatanes.

b. Computer Based Test National Examination Criteria

Based on National Examination Standards Operating Procedure year 2016/2017 from BSNP, there are some criterias to become a school that applies UN-*CBT*. First, there are available

infrastructures as the following : 1. Personal Computer (PC or laptop as client and the number of UN participant minimum 1:3 and reserve client minimum 10%), 2. Adequate server that equipped with UPS, 3. Local Area Network (LAN) with cable media, 4. Adequate speed internet connection, 5. Adequate intake electricity (have adequate generator set is preferred), and 6. Adequate examination room. Second, all of schools that has enough computer can follow UN-CBT, but if the schools that not has enough computer, they can join with closer school that has sufficient number of computer. So, in year 2016/2017, all of schools (Junior and Senior High School) must follow UN-CBT (Kementerian Pendidikan dan Kebudayaan Indonesia: 2016).

2. National Examination

a. A Brief History of National Examination

According to Kellaghan (2004:37), a national assessment is an exercise designed to describe the level of achievements not of individual students, but of a whole education system or a clearly defined part of it. Then, based on Educational and Cultural Minister's Decision no 5 years 2015, national examination means the activity of measurement and grading the achievement of competence of graduates in certain subjects (Kementerian Pendidikan dan Kebudayaan Indonesia: 2015).

National examination had been changed time to time. First, in 1965-1971 the final examination system named *Ujian Negara* and applied for all subject. In this period, the examination still centralized the implementation was decided by the government. Then, in 1972-1979 *Ujian Negara* was deleted and replaced with *Ujian Sekolah*. This system gave authority for each school to conduct their own final examination. Exercise and result process also submitted to the schools. The central government role was only arranged and release general examination guideline. After *Ujian Negara*, in 1980-2000 it changed became *Evaluasi Belajar Tahap Akhir Nasional (EBTANAS)*. This system was applied to improve and control education quality. It was also used to get indicator (grade) that mean “same” to make it as comparison among schools. In the implementations, EBTANAS had many weaknesses in academic aspect and implementation technique, because of the weakness of EBTANAS in 2001-2004 it was changed became *Ujian Akhir Nasional (UAN)*. There was a big difference between EBTANAS and UAN in the way of determining graduation. Then, in 2005, to reach compulsory quality, the government applied national examination for junior high school and senior high school or equal. Meanwhile, for elementary school or equal *Ujian Akhir Sekolah Berstandar*

Nasional (UASBN), now called *National Examination (NE)* just implemented in 2008. The evaluation in a form of NE was supported by a system that secures the quality and the secret of NE question and also the implementation of NE that safe, honest and fair. The NE result was used as one of determinants of students' graduation from an educational unit. Then, it also became one of the considerations for admission to continue higher education level. The result of NE also used to make quality mapping, develop and provide assistance for quality improvement.

b. Strengths and Weaknesses of National Examination

Although NE gets many criticisms, NE also has positive sides. Based on Hartanto, (2016:33), there are some advantages of NE. First, NE used to improve and repair education quality. Second, NE can grow both students' and teachers' motivation in learning process. Then, for the schools NE can be to classify the school. Besides, NE also used to balance the weaknesses of evaluation that were conducted by teachers. NE also became independent evaluation tool that more objective than local evaluation. The last, NE can be used as consideration in new students' admission of higher education level (Kementerian Pendidikan dan Kebudayaan Indonesia: 2005).

Based on National Examination Policy Changes from Indonesian Educational and Cultural Minister there are some weaknesses of NE such as: cheating behavior, teaching to the test behavior, students became “victim” (answer sheet dirty or ripped in paper pencil test), students became distress, the learning process did not finish, lack of standardize test, and high stake testing attitude (Kementerian Pendidikan dan Kebudayaan Indonesia: 2003). Thus, NE has strengths and weaknesses for students, teachers and other person.

B. Senior High School

There are two different kinds of Indonesian high schools providing two streams of education for those who choose to optionally enroll. According to Educational and Culture Minister’s decision No:0490/U/1992, Senior High School is form of secondary education units which has aim that to intended to go on to university (Kementerian Pendidikan dan Kebudayaan Indonesia: 1992). The other is for those who plan to find job right away. So, senior high school is continued from junior high school level.

Besides, there are some programs in senior high school. The program is a media to give facility to students for developing their potential ability optimally. The main programs are Science program, Social program and Language program. The science program has aim to prepare the

students for continuing in university in mathematics and science program. Then, the social has aim to prepare the students for continuing to university in social program. The last, the language program has aim to prepare the students for continuing in university in language or communication program. So, the programs in senior high school prepare the students to continue in university or workplace.

1. Curriculum

Curriculum is important in education because classroom decisions cannot be made without reference to structures operating outside the classroom (Lamb and Nunan, 1996:79). Curriculum development represents a dedication juggling act involving the incorporation of information about the students, the language and the learning process. Based on Lamb and Nunan (1996:80), curriculum is taken that refer to statements about what should happen in the teaching and learning situation. It means that curriculum have been produced to guide teaching and learning.

Curriculum structure is the organizing of main competence, basic competence, content of learning, subjects and the burden of learning in every educational units and educational program. Main competencies in Curriculum 2013 consists of spiritual attitude main competence, social attitude main competence, knowledge main

competence and skill main competences. While, basic competence is the breakage of main competences.

Based on Educational and Culture Minister's decision no: 60/2017, Curriculum in Senior High School gives the opportunity to learn another subject from the other major (Kementerian Pendidikan dan Kebudayaan Indonesia: 2017). For example, a student from natural science program can take some subjects in social science or language program such as sociology or economy. Students can take which ever subject that they like. In fact, students are free to choose program and up to two cross-program subjects as early as they enter senior high school. With this feature, the Ministry hopes to abolish the paradigm that students who get into natural science stream are smarter and better than the others.

2. Subjects

In Curriculum 2013, subjects of Senior High School are divided as two groups such as regular subjects and programs subjects. Regular subjects are followed by all students in all programs. Nevertheless, the program subjects are followed by students in science, social or language program. The regular subjects are Religion Education, Pancasila and Nationality Education, Indonesia Language, Mathematic, English Language, Indonesian History, Art and Culture, Sport Physical Education and Health and Craft. Besides, in science program, the subjects are added by Physics, Chemistry and Biology. In social

program, the subjects are added by Indonesian History, Geography, Economy and Sociology. Besides, in Language program, the subjects are added by Indonesian Language, English Language, Local Language and Foreign Language.

C. Teacher's Practices

Teacher is a person who provides education for students. According to Jill (2008: 35) teacher is a professional educator who has the main role to teach, guide, direct, train, asses and evaluate the students in their early childhood of formal education elementary and in the high school. Teacher is one of human component in teaching learning process who is participating to form being potential human sources in development. Besides, teachers are carriers of either positive or negative behavior toward students. So that, teacher should play the role activity and place their state as a professional teacher, analogously with development of period. It means that teacher has responsible to involve the learners to a maturity.

Teacher is not only as an instructor who transferring their knowledge, but also as an educator who transferring the value. Besides that, teacher is a counselor who gives the briefing and guide the learners in teaching learning process. Teachers are not only teach in the classroom, but also they must be able to be a catalyst, motivator and development dynamist place where it live. Teachers may use a lesson plan to facilitate

students learning, providing a course of study which is called the curriculum. Moreover, teacher has big effect in success of students learning. It means that teacher should be able to make positive progress in education.

Besides, practice is an activity or exercises repeatedly in order to acquire improve the proficiency in it. Moreover, practice is actual activity that carry out or a particular activity habitually. Therefore, practice is the act of rehearsing a behavior or engaging in an activity for the purpose of improving or mastering the proficiency. Here, the teacher's practices are the activities or exercises of the teacher to deliver the material to the students.

1. Teacher's Practices in Preparing the English Material

Teacher's practices in teaching English language can do with invite the students' interest, Jill (2008:40). Interest is a adhere characteristics to someone and has crucial influence to studying, Jill (2008:42). According to Jill (2008:45), to create the students' interest, teacher should take the appropriate practices include methods, media and stimulate students' motivations.

a. Methods

In teacher's practices, determining the methods are crucial to achieve the learning goals. As one of learning components, method is important part. Jill (2008: 47) explains the methods to teach

actively related with teacher's practices as follows :

a) Project Method

Project method is a method that gives opportunities to students to use living activities. Students can use the daily activities in their practices. Project method discusses the material related with students' experiences.

b) Task and Recitation

In this method, students are asked to read more using interesting topic and find other similar books as comparison, but they are related with the lesson. While in recitation, students are given variation tasks and priorities of learning goals, then present the task in the form of report.

c) Discussion

Discussion is a technical in teaching learning that it can be practiced by teacher in school. Applying this model, the process of interaction occurs and students share their own experiences. Students are active in participating of learning because with discussion activities : (a) Students will give response, (b) Students have opportunity to share their abilities, (c) Students develop their motivation, (d) Students have critical study and thinking, (e) Functioning students abilities.

d) Question Answer

This teacher's practices are a practice used by teacher in teaching activity in the form of question that should be answered. The answers or questions can come from both teacher and students. When it comes from teacher, usually question as a test, but when it comes from students it is a real question.

b. Media

Media is any person, material or event that established condition which enable the learner to acquire knowledge, skill and attitude. According to Jill (2008:49), media is delivering message and is able to stimulate the thought, feeling and students' desire so it can support them in the process of studying. Furthermore, media is able to stimulate the learners learning better and is able to develop their performance according to the instructional goals. So, media is something to transfer knowledge and is able to stimulate idea, feeling and students desire to support the learning process.

a) Criteria of Choosing Media

There are many kinds of media used in teacher's practices which each media has different characteristic. Something has to be considered in choosing media as follow :

a.1) The media should be easy to prepare

- a.2) The media should be able to explain something will be explained by teacher to the students
- a.3) The media should be appropriate with the students condition.
- a.4) The media should be suitable to the instructional goal.

b) Kinds of Media

According to Jill (2008:50), there are three kinds of media :

a.1) Audio

This kind of media is relying on the sound or voice aspect. Media audio is appropriate with listening lesson. Nevertheless, teacher must make batter it so students are interesting and active.

a.2) Visual

When using visual media, we just receive the visible object. The media that use to apply as a visual media are picture, and another object.

a.3) Audio Visual

Audio visual consist of sound completed by its picture. When we choose some kinds of media, better we include and add our skills there. As an example when we apply audio media we should give adding explanation about the material in the media.

c. Motivation

Motivation is not only applied in everyday life but in education world as well. Jill (2008: 52) said that motivation is the process of generating, directing and stabilizing behavior toward a goal. Motivation is a reason action which means that motivation becoming power or stimulates an individual action. Motivation also can be said as a process of effort to provide certain condition, in order to someone want and interest to do something and if she or he does not interest, so she or he will try to lose her or his felling that something is not interest. So, motivation can be stimulated from external but motivation grows on human self in learning process.

Motivation is essential condition of learning, where the learning result will be optimal with motivation that given, the more success in the subject, therefore motivation always definite the intercity of learning for students. Motivation stimulates the students to study hard and to give attention toward the teacher explanation in order to have good attitude on their learning process, between high and low motivation is able to influences learning process.

2. Teacher's Practices in Preparing the Computer Skill

Computer is a device that can be instructed to carry out sequences of arithmetic or logical operations automatically, Davey (2011:5). Furthermore, computer is a machine (mostly electronic) that is able to take information (input) and process it to make new information (output). Besides, skill is the ability to carry out a task with determined results often within a given amount of time, energy, or both. So, computer skill is an ability to sit down at the computer and have enough knowledge of how the computer works.

According to Dunkel (1991:15), for preparing the computer based assessment, the teacher must do the practices are:

a. Socialization of students

Feedback indicated a need for the instructor to articulate the rationale and the suitability of the assessment methods to the discipline being assessed, with some students unconvinced by the need for computer-based testing methods. When introducing e-assessment in disciplines, there is a less obvious fit with approach to assessment, it will be necessary to provide students with greater support in managing their anxiety levels. Thus, with this socialization about computer based test, the students which have identified the need for instructors to integrate the assessment method at an early stage and reduce student anxiety levels in preparing the computer examination.

b. Preparation of students for assessment

Adequate preparation appears to counteracting this mindset, but there is less agreement on the nature of the interventions that are required to address student anxiety levels. Student feedback in our study highlighted two areas where preparation needed digital skills and examination technique.

a.1) Digital skills

The enhancement of students' information technology (IT) skills is as a prerequisite for student preparation. Dunkel (1991:17), there is no established relationship between examinees' level of computer familiarity and performance on computer-based tests. In the digital skills preparation included previous experience of computer-based testing and keyboarding skills. Indeed, whilst keyboarding proficiency was highlighted by some individuals as a differentiating factor in exam performance.

a.2) Exam technique: test-taking practices for online examination

Another important determinant of performance in examinations which students identified was effective test-taking practices. The students attempted to deploy a range of organisational (time management and sequencing) and cognitive factors (checking, eliminating and using memory aids practices). Transferring practices developed for paper-

based examinations to the computer-based examination was not always straightforward for the students. For example, difficulties with time management appeared to be associated with the fact that questions were presented one at a time and students were not provided with an overview of the exam content.

a.3) Preparation and management of assessment centres

The preparation of multi-purpose PC labs which are to be used as assessment centres. Feedback suggests that invigilators should ensure all technical issues have been resolved before students enter assessment centres. It is not better to let the students enter into the IT room until confirmed all the computers work as well. So, students also highlighted the importance of ensuring equity in conditions across assessment centres.

D. Previous Studies

Previous studies are result of research that has been conducted by other researchers before. In this part, the researcher shows some related researches which also talk about teacher's practices for preparing the computer based national examination.

The first previous study was conducted by Murti (2016:72) it was conducted to investigate the English teacher' lived experience on English

computer based national examination at vocational high school. The respondents of this research were English teacher in SMKN 2 Yogyakarta, SMKN 5 Yogyakarta and SMKN 1 Yogyakarta. The approach of research is qualitative approach. In this research stated that to prepare the students for facing the computer based national examination, teacher must gave more motivation to them. Moreover, the teacher must give many exercises in language laboratory. It can trained the students how to operated the computer well, especially how to operated computer when computer based national examination.

From the first previous study, this present study is different from the previous study. The differences are about the aspect and place of being searched. In the previous study, the researcher investigated English teacher' lived experience in English lesson for computer based national examination in vocational high school. In this present study, the researcher tries to investigate teacher's practices for preparing the computer based national examination on English lesson in Senior High School.

Second study was conducted by Maulida (2016:360) it was conducted to investigate the effectiveness of final test based computer to prepare the computer based national examination at vocational high school. The respondents of this research were students in SMKN 1 Malang, SMKN 2 Malang and SMKN 3 Malang. The approach of research is quantitative approach. In this research stated that to prepare computer based national

examination, first point must done by the teacher was gave directive to students for losing their anxiety. Furthermore, the school must prepare the final test in every stage with computer based test. With this method, the students from first stage had studied about how to answer the questions with computer based test in final test.

From the second previous study, this present study is different from the previous study. The differences are about the aspect, place and subject of being searched. In the previous study, the researcher investigated the effectiveness of final test for preparing the computer based national examination in Vocational High School. In this present study, the researcher tries to know the teacher's practices for preparing the computer based national examination in English lesson at Senior High School. On other hand, this present study has difference in subject of the research. In second study, the respondents in this research were students in Vocational High School, but in this present research, the respondents were teacher in Senior High School. Furthermore, this present study uses descriptive qualitative design. Thus, if previous study the researcher want to know the effectiveness of using final test for preparing computer based national examination at Vocational High School, but in this present study will try to investigate by describing what is various teacher's practices for preparing the computer based national examination in English lesson at Senior High School.

Third study was conducted by Walker and Handley (2016:12), it was conducted to investigate the practice to learners for engagement with computer based testing. The respondents of this research were 190 international MA Education students in China. The approach of research was qualitative approach. In this study stated that for preparing computer based examination the teachers should give socialisation of learners to the assessment method. Furthermore, teacher must prepare assessment design and equipment. Moreover, students would need adequate preparation to negotiate the transition from formative to summative computer-based assessments.

The third study has differences from this present study. The differences are place and lesson of being searched. In the previous study, the location being searched in international MA Education students in China, but in present study, the location being searched in SMAN 2 Trenggalek. Besides, the lesson in the first study is all of the lessons, but in this present study, the researcher will investigate the English lesson. Therefore, from the differences with previous study, in this present study the researcher tries to know the teacher's practices in English lesson of XII MIPA students for preparing the computer based national examination at SMAN 2 Trenggalek.