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**COMPUTER BASED TEST IN MODERN ERA FOR STUDENTS AT  
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**Received:**December 26<sup>th</sup> 2021**Revised:**January 07<sup>th</sup> 2022**Approved:**January 10<sup>th</sup> 2022**Abstract**

*Test is an assessment tool in written form to record or observe student achievement in line with the assessment target (Jacobs & Chase, 1992; Alwasilah, 1996). The answers expected in the test according to Sudjana and Ibrahim (2001) can be written, verbal, or deed. However, the media for the test also affects students' success in the test. The test activities used in various schools are still conventional, namely only with paper media which has some weaknesses in the process, although in the current era it will be easier and more efficient if the test activities are computer-based or we call CBT (Computer Based Test). Computer Based Test is an exam that is done on a computer so it does not require paper, pen or pencil to answer the questions. According to (S. Al-Amri, 2008: 22-44) Currently, the use of computer-based testing is quite widespread in the corporate world. Therefore CBT (Computer Based Test) is the best option in mid test and final exam. This research focused the test on computer media and then the researcher get the results with PBT to know the effectiveness. The writer used approaching method. The data of the research contain 143 participants including 133 students and 10 teachers who use the test with computers media. The results of research have given writer found if those students are interested in CBT other than FBT because it's easier and it can be solve on time. Beside the data of students the writer have others data from teachers who agree if CBT is acceptable and help teachers to check the results of the test.*

**Keywords:** *Computer, Modern, Student***Introduction**

CBT is a learning and assessment method using a computer. In the assessment of learning outcomes, the questions are presented through a computer and it is possible that each examinee gets a different question (Jeong, 2014). Participants only need to select an answer using the cursor. So CBT does not require a pencil or pen (Stallard, 2019). In addition, it also does not require sheets of paper because the question and answer pages are already on the computer. Just click-click (Carnaghan, Edmonds, Lechner, & Olds, 2011). This is what distinguishes CBT with PBT (Paper Based Test). The CBT system makes it easy for participants because participants only need to move the cursor to select an answer or click on the answer page to write an essay answer (Angsuwatanakul et al., 2021). Meanwhile, PBT paperwork is prone to damage and dirt. CBT is relevant in this

era because students need the best facility to support the learning process and test activity (Rossiana, 2015). The implementing of CBT to support the weakness of conventional test that have many weakness and it's hard to check by teachers because it needs time to get the results of the test.

Test is an assessment tool in written form to record or observe student achievement in line with the assessment target (Marzano & Toth, 2013). The answers expected in the test according to Sudjana and Ibrahim (2001) can be in writing, verbally, or in action. However, the media for the test also affects students' success in the test (Basri & Syamsia, 2020). However, the media for the test also affects students' success in the test. The test activities used in various schools are still conventional including Mitrardharma senior high school, namely only with paper media which has some weaknesses in the process, although in the current era it will be easier and more efficient if the test activities are computer-based or we call it computer based test.

Test using computer media is a learning and assessment method using a computer (Tawafak, Romli, bin Abdullah Arshah, & Almaroof, 2018). In the assessment of learning outcomes, the questions are presented through a computer and it is possible that each examinee gets a different question (Chi & Wylie, 2014). Participants only need to select an answer using the cursor. So CBT does not require a pencil or pen. In addition, it also does not require sheets of paper because the question and answer pages are already on the computer. Just click-click. This is what distinguishes CBT with PBT (Paper Based Test) (Krebs, 2019). The CBT system makes it easy for participants because participants only need to move the cursor to select an answer or click on the answer page to write an essay answer. Meanwhile, PBT paperwork is prone to damage and dirt.

Based on the explanation above the test using computer is a solution and be alternative test activity because CBT is an exam that is done on a computer so it does not require paper, pen or pencil to answer the questions. All written questions and answer sheets are also provided on the computer so that we only need to click on the correct or incorrect answers or just type when answering essay questions (Antol et al., 2015). Computer Based Test is widely implemented in various fields such as education and in the world of work. In the field of education, it is usually used to determine what is the highest score for a student or student in mastering one subject or course (Taslim, Asrifan, Chen, & Nurdania, 2019). While in the world of work, Computer Based Testing is used to determine the basic abilities of a job applicant so as to make it easier for the HRD part to work selecting prospective employees.

### **Research Methodology**

This research used approaching method, where the writer went to Mitrardharma senior high school and doing observation and then interview based on the test using computer media. The writer also participate to the test activity to know respond students for the test that different other than using paper (Alsalem, 2013). The results of test and timing of test be a reference to know the effectiveness of the test.

### **Results And Discussion**

The writer take the data based on approach process to students at Mitrardharma for two months when the writer conducting practice at Mitrardharma senior high school. The data based on my observation and interview to students showed the data based on table 4 bellow:

No.Assessment of aspect	Statement	Scale			
		Agree	Completely Agree	Disagree	Completely Disagree
1. Computer Based Test	1 Easy to understand	100%			
	2 Interesting	100%			
	3 The material could be read well	100%			
	4 The material is complete	100%			
	5 Untroublesome for users	100%			
	6 Increasing student's ability in grammar	100%			
	7 That's appropriate for study	100%			
	8 The teaching material is acceptable for student's need	100%			
	9 Practice	100%			
	10 Useful	100%			

Results of interview activity to 10 teachers at Mitradharma senior high school 2021. Agree : 100 %, Completely Agree 0 %, Disagree 0 %, Completely Disagree 0%. Table 4.1 above show the data if 10 teachers at Mitradharma School agree with CBT other than PBT because of the effectiveness and good timing when checking proses. The results of teacher's data show 100% agree and support the test using computer.

No. Assessment of aspect	Statement	Scale			
		Agree	Completely Agree	Disagree	Completely Disagree
1. Computer Based Test	1 Easy to understand	90%		10%	
	2 Interesting	90%		10%	
	3 The material could be read well	90%		10%	
	4 The material is complete	90%		10%	
	5 Untroublesome for users	90%		10%	
	6 Increasing student's ability in digital	90%		10%	
	7 That's appropriate for test	90%		10%	
	8 The material for test is acceptable for student's need	90%		10%	
	9 Practice	90%		10%	
	10 Useful	90%		10%	

Results of interview activity to 133 students at Mitradharma senior high school 2021 Agree : 90 %, Completely Agree 10 %, Disagree 0 %, Completely Disagree 0%. Table 4.2 above show the data if 120 students at Mitradharma School agree with CBT other than PBT because of the effectiveness and good timing when checking proses and 13 students disagree because of some obstacles such as in operating system. The results of teacher's data show 90 agree and support the test using computer and 10 disagree (Pamuk, 2012). Final results of CBT based on the data of teachers and students show the data 4.3 bellow :

Participants	Effectiveness	Not Effective
Teachers	100%	0%
Students	90%	10%

Final results based on 4.3 show if CBT is effective to apply because of observation and interview to students and teachers at Mitradharma senior . Both of action used approaching method.

**A. Advantage of Computer Media for students test based on the research**

1. Easy to understand
2. Interesting

3. The material could be read well
4. The material is complete
5. Untroublesome for users
6. Increasing student's ability in digital
7. That's appropriate for test
8. The material for test is acceptable for student's need
9. Practice
10. Useful

#### **B. Disadvantage of Computer Media for students test based on the research**

1. It's hard to operate for some students who don't know about digital
2. Type proses to filled the CBT is longer other than writing process when PBT

#### **Conclusion**

The research as an activity to know the effectiveness of CBT at Mitradharma senior high school. The test activities used in various schools are still conventional, namely only with paper media which has some weaknesses in the process, although in the current era it will be easier and more efficient if the test activities are computer-based or we call CBT (Computer Based Test). Computer Based Test is an exam that is done on a computer so it does not require paper, pen or pencil to answer the questions. According to (S. Al-Amri, 2008: 22-44) Currently, the use of computer-based testing is quite widespread in the corporate world. Therefore CBT ( Computer Based Test ) is the best option in mid test and final exam . This research focused the test on computer media and then the researcher get the results with PBT to know the effectiveness. The writer used approaching method. The data of the research contain 143 participants including 133 students and 10 teachers who use the test with computers media. The results of research have given writer found if those students are interested in CBT other than FBT because it's easier and it can be solve on time. Final results based on the data show if CBT is effective to apply because of observation and interview to students and teachers at Mitradharma senior.

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