Student Motivation in Completing Arabic Assignments Using Computer and Paper-Based Assessment Methods: Comparative Study

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Abstract
Teachers use many methods to measure students’ progress in learning Arabic, either by using a computer or manually. This study aimed to determine the level and comparison between student motivation to complete assignments using computer-based and paper-based test methods in Arabic language learning. This research used a quantitative approach with comparative descriptive by performing observation, questionnaire, and interview for data collection. It used data analysis methods, such as validity tests, reliability tests and percentage analysis. The research subjects were 23 tenth graders of Visual Communication Design of SMK Muhammadiyah 2 Malang. The results of this study are: (1) the motivation of students to complete Arabic language assignments by computer-based test methods is 81.13% with high category. (2) The motivation of students to complete Arabic language assignments by paper-based test method is 83.82% with high category. (3) Comparison between the motivation of students to complete assignments using computer and paper-based test methods is 2.7% with low category. This difference is due to several factors, including human resource factors. This research has contributed to the Arabic language learning evaluation as it can be used as a teacher’s consideration on what methods to use.

Keywords: computer-based test, motivation to complete the tasks, paper-based test

Abstrak
Banyak metode yang dilakukan guru untuk mengukur murid dalam pembelajaran bahasa Arab, baik dengan menggunakan komputer ataupun dengan cara manual. Penelitian ini bertujuan untuk mengetahui tingkat serta perbandingan motivasi siswa dalam menyelesaikan tugas menggunakan metode computer dan paper-based test pada pembelajaran bahasa Arab. Penelitian ini menggunakan pendekatan kuantitatif dengan jenis deskriptif-komparatif dengan menggunakan metode pengumpulan data observasi, angket dan wawancara serta menggunakan analisis data berupa uji validitas, uji reliabilitas dan analisis prosentase. Subjek penelitian yang digunakan ialah siswa kelas 10 Desain Komunikasi Visual SMK
Muhammadiyah 2 Kota Malang dengan jumlah 23 siswa. Hasil penelitian ini adalah, (1) Motivasi menyelesaikan tugas siswa dengan menggunakan metode computer-based test sebesar 81,13% dengan kategori tinggi. (2) Motivasi menyelesaikan tugas siswa dengan menggunakan metode paper-based test sebesar 83,82% dengan kategori tinggi. (3) Perbandingan motivasi menyelesaikan tugas menggunakan metode computer dan paper-based test sebesar 2,7% dengan kategori rendah, perbedaan tersebut karena beberapa faktor diantaranya faktor sumber daya manusia. Penelitian ini mempunyai kontribusi dalam bidang evaluasi pembelajaran bahasa Arab sebagai pandangan guru tentang metode apa yang akan digunakan.

**Kata Kunci:** computer-based test, motivasi dalam menyelesaikan tugas, paper-based test

**INTRODUCTION**

Since the COVID-19 pandemic came to Indonesia, the government has made new policies in the education sector, which has impacted on changing the concept of education. Learning and teaching activities previously carried out face-to-face were changed to face-to-screen. It is undoubtedly a big challenge for educators, in which case teachers must be able to innovate in carrying out learning and teaching activities, as well as in the use of learning methods, media and others. It is done to support the continuity of learning in different circumstances than before. This change in circumstances requires many people to return to being more technologically literate and careful in using existing technology.

The rapid development of technology is now starting to be used by the world of education to support various things, such as assessment in the learning process. The assessments carried out can be seen from the existence of learning outcomes. Learning outcomes are the results given to students in the form of assessments after participating in learning activities, such as knowledge, attitudes, and skills, which can be seen from changes in behavior (Dwijayani, 2019).

The use of this technology has gradually made educators begin to change some learning methods, such as assessment methods. Educators who initially used conventional assessment methods move to unconventional assessment ones. Conventional assessment methods, such as paper-based tests, must be more diverse, making the learning process more varied and exciting. It leads to a decrease in the level of student activity and a lack of motivation in following the learning process so that the learning results obtained by students are still incomplete or still below the minimum completion criteria (KKM) (Damayanti & Pargito, 2017).

The paper-based test assessment method in this modern era has gradually decreased because it has begun to be replaced with computer-based tests, which are easier for educators to carry out assessments. However, this is only true in some educational institutions. The paper-based test assessment method is still often encountered in changing education systems. It is due to several factors: (1) the lack of human resources ability to utilize technology, (2) policy changes in the education system (offline to online and then back to offline), (3) school policies in the implementation of assessment methods, (4) lack of knowledge of the existence of other non-classical methods that can be utilized.
A paper-based test is an exam or scoring system that uses paper as a tool or medium for exams, while a computer-based test is an exam system that uses computers as a tool (Sudihartono, 2020). A paper-based test is an assessment method commonly used in education, especially when the education system has remained offline. However, the computer-based assessment method has also been applied during offline learning periods, but it needs to be faster to apply. So, when all elements of society face changes in the education system require them to maximize the use of the computer-based test method, the community feels that they must restart the new system from scratch, even though the use of this computer-based test method has existed. The computer-based assessment methods used in education are increasingly diverse, facilitating learning and assessment. Some platforms commonly used in learning are YouTube, Google Classroom, Google Forms, Kahoot, Quizizz and others.

Using computer-based assessment methods in the online learning period is considered appropriate. During this online learning period, educators are required to start maximizing the use of technology in the learning process. However, there are still some educational institutions that use the paper-based test assessment method, as stated by Lutfi Eko Nurseha et al. (2021) in their research that the application of the computer-based assessment method is only carried out during the national examination, while for other assessments, it still uses the paper-based test method. Moreover, Selfy Udayana K. W. (2021) also stated in his research that in one school, two assessment methods are applied simultaneously: paper-based tests for students who do not have smartphones or computers and computer-based tests for students who have smartphones or computers.

Based on observations by researchers in the class of tenth graders of Office Automation and Governance, carried out while doing internships at SMK Muhammadiyah 2 Malang, researchers found a tendency for students to refrain from doing assignments or homework given by teachers. It is because teachers who give homework or assignments as paper tests are photographed and uploaded through the Google Classroom platform. There are several other obstacles, such as the need for more understanding of students and teachers regarding the use of the platform, so it is also a problem that makes students more reluctant to do the tasks they should do. These problems continue to occur and are left alone, so they impact the values that should be considered for evaluation by teachers.

Researchers have applied two assessment methods to school internships: paper-based tests and computer-based assessment methods. In this case, researchers found the influence of these different assessment methods on student learning motivation. Researchers also made follow-up observations, and they found that students tend to be reluctant to look for sources of answers to support the assessment process or work on the task. In addition, researchers also conducted interviews with teachers of Arabic subjects. Later, it was discovered that students would only complete tasks if supervised and rewarded.

Several studies have been conducted to increase motivation, including using Kahoot (Mada & Anharudin, 2019) and mobile games in collaborative learning (Mivehchi & Rajabion, 2020). Meanwhile, research on learning and learning evaluation includes gamification, carried out by Alshammari (2020), and learning...
and learning evaluation using social media (Xuan et al., 2020). Existing research has indeed explained the use of technology in learning, but there has yet to be research that compares learning motivation between paper and computer-based tests.

So, with this, the researchers want to conduct in-depth research on comparing student learning motivation in completing assignments using the computer-based and paper-based assessment methods. This study aims to determine the level and comparison of student motivation in completing tasks using Arabic with two different assessment methods: the computer-based and paper-based assessment methods.

METHOD

Research Design and Data Collection Technique

The method used in this study is quantitative with a comparative descriptive type with two independent variables (X) and one dependent variable (Y) (Sugiyono, 2015). The free variables in this study are the use of the paper-based test assessment method and the computer-based test assessment method. In contrast, the bound variable motivates the Tenth Grade Visual Communication Design students to complete Arabic tasks. The population in this study was Tenth Grade students at SMK Muhammadiyah 2 Malang. At the same time, the sample used was 23 Tenth Grade Visual Communication Design students, using a total sampling technique. Total sampling is where all population members are used as samples because the population number is less than 100 (Sugiyono, 2018).

The data collection methods used for this study were observation, interviews, and questionnaires. The instruments used are: (1) observation sheets to observe students' responses to the use of computer-based and paper-based assessment methods, (2) interview sheets to explore students' perceptions of the use of these methods, and (3) questionnaire sheets with five answer options to measure the level of student motivation in completing Arabic assignments.

Data Analysis Technique

The data analysis techniques used in this study are validity tests, reliability tests and percentage analysis. The research validity test aims to measure the validity of each question item in the questionnaire so that the questionnaire can be used in the research and provide appropriate results. The instrument validity test in this study was carried out with Pearson's Product Moment analysis with a value of > 0.5.

Reliability tests are conducted to test the provisions of tools in measuring data. This reliability test is carried out on two variables: variable X (Using a paper-based test as an Arabic assessment method) and variable Y (Using a computer-based test as an Arabic assessment method). This reliability test is performed using the Cronbach Alpha formula.

The data analysis technique used in this study is a percentage descriptive analysis method, calculating the frequency and percentage of answers on each questionnaire item.
RESULT AND DISCUSSION

To collect supporting data for this study, researchers conducted observation activities, interviews, and the distribution of questionnaires. With observation activities, researchers know about student responses related to treatment in computer-based tests and paper-based test methods during learning assessment. The 23 samples used in this research had different backgrounds in learning Arabic. Four of the 23 students had studied Arabic in advance. In contrast, the others only discovered Arabic in vocational school.

Based on the observation activities carried out, it was found that when students were given treatment by applying the paper-based test assessment method, most students took advantage of the opportunity to find answers by asking other classmates or looking for them in books. Because there is a question-and-answer process with other students, it decreases the students' focus on completing the task. However, students also look more relaxed and comfortable when completing the task.

The student's response to the application of the computer-based assessment method is that they seem to be more independent in completing assignments. It can also be seen from a higher level of focus in completing tasks. However, some students have anxiety about completing the task using this method because there is a timer on each question, so the students do not have much time to access the answers through other pages or friends. From the results of these observations, the researchers concluded that there were differences in attitudes or responses to the two assessment methods.

In addition, researchers also explore data by conducting interviews with research samples. The interview was conducted to obtain reinforcing data on the questionnaire measuring student motivation in completing Arabic assignments. The results of interviews with the students are as follows.

<table>
<thead>
<tr>
<th>No.</th>
<th>Interviewee</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Student A</td>
<td>I suppose the paper-based test is an exam carried out using paper or books, like the daily tests we usually do. The computer-based test is a test that does not use paper.</td>
</tr>
<tr>
<td>2.</td>
<td>Student B</td>
<td>If I use paper, I feel lazy, Ma'am, because I must write the answer. If the answer is short, it's okay. If the answer is long, I am lazy. Moreover, having to write Arabic is also tricky, Ma'am. If I use a computer, I just need to click on it, so it is more accessible and not complicated. It makes me do it faster; so, yes, it is encouraging that the exam takes little time.</td>
</tr>
</tbody>
</table>
3. Student C  
If I use a computer or smartphone, it is a bit complicated, Ma’am, because I need a quota, and if I miss it, I cannot change the answer anymore. If I use paper, I can erase the answer when I double-check. Especially if I use Quizizz on a computer, there is a time, Ma’am, so I am being chased by time. It makes me focus on the time rather than the task.

4. Student D  
Actually, I am more focused on using paper because I do not chase the time. I will be more relaxed, too. Then, if it is on paper, I am not affected by notifications or want to open pages on the computer. If on the computer, sometimes I still want to open another page, play games, and reply to messages. If I use paper, there is no such disturbance.

5. Student E  
If I use a good computer, Ma’am, the appearance is different, that’s it. So, it is nice to not get bored. If I use paper, it looks like that is it. White or opaque paper is the same as writing. Well, if I use Quizizz on the computer, there is the score, the award, and the meme, too. Then the colorful things will make my eyes fresh, Ma’am. I am not tired of seeing the questions.

6. Student F  
In my opinion, it is relative, Ma’am. It depends on the person. If it is more appropriate to use CBT because it is easier, simpler, and more attractive, the appearance is not monotonous. So, students can be more enthusiastic about doing assignments because it is not complicated, Ma’am. Then, there is no need to collect the tasks at the teacher’s desk; just click, and the grades come out, and the teacher receives them. It helps students not waste paper, too, Ma’am. Simple.

Based on Table 1 regarding the speakers’ opinions, it can be concluded that the paper-based test assessment method is an evaluation method that normally uses paper. In contrast, the computer-based assessment is a computer-only method. In addition, students’ perceptions of the use of the two assessment methods have convenience and difficulty, which affect students’ enthusiasm for completing assignments.

Students’ perception of focus level when completing assignments using the paper-based test method is more significant because the disturbances are very low for them, while using the computer-based test assessment method, the disruption tends to be higher, such as the presence of messages and others. However, when using the computer-based test method, students will feel happier and not quickly
get bored because of the attractive display presented when completing assignments in memes, grades, and rewards.

In addition, the students also state that the suitable method used as an assessment depends on each student's needs, and the disadvantages and advantages of each are used as considerations. Computer-based tests have their convenience, such as they can reduce paper use, unlike paper-based tests. With easy access and minimal internal disturbances, it makes students feel more relaxed and comfortable using it.

Learning motivation is one of the crucial factors in the learning process. Everyone has different motivations, which are influenced by several factors, both intrinsic (inside students), such as the student's state of mind, and extrinsic (outside the student), such as learning methods, learning media and others.

Based on the research conducted to determine student learning motivation in extrinsic terms, a questionnaire was distributed to 23 students with four motivational indicators and interviews related to this matter.

Chart 1. Results of Student Motivation Questionnaires in Completing Arabic Assignments

In the results of processing and calculating data obtained from the questionnaire, it was found that students' motivation in completing tasks using the paper-based test method in the perseverance indicator got a percentage of 83.20%. The computer-based test method got a percentage of 81.40%. It means that both can be categorized as high. It can be seen from observations that show that students always try to succeed and complete tasks. It is in line with the research of Nitami et al. (2015), who state that a student is said to be diligent if he completes his tasks well and strives to correct mistakes to be successful.

In addition, in the tenacious indicators in the face of difficulties, the paper-based test method obtained a percentage of 83.50% and the computer-based test method with a percentage of 85.50%, both with a high category. The evidence is shown by the attitude of not quickly feeling surrendered or hopeless and the absence of a sense of compulsion in completing tasks. As stated by Nitami et al. (2015), students have the motivation to learn if they feel encouraged and always
complete their tasks well. In contrast to students who have low motivation, according to Fatoni (2019), students who have low motivation can be seen from the low intensity of doing assignments; it is too easy to feel discouraged and too quick to feel satisfied with their achievements.

In language learning, much technology is used. According to Golonka et al. (2014), technology is essential in increasing motivation for language learning, especially using mobile games, because games create excitement and enthusiasm. According to the researcher’s view, learning must adapt to the characteristics and needs of students, both in learning and evaluation. It is also confirmed by Rebe et al. (2009), who stated that using this technology has an intrinsic motivational influence on students. Stockwell (2013) argues that technology inside and outside the classroom can increase student motivation. Several studies above show that although there is no significant increase in comparative scores when using paper-based and computer-based tests, technology still has a vital role in increasing student motivation in the learning process and when carrying out evaluations.

The feeling of not being quickly bored in the paper-based test method gets a percentage of 85%, and the computer-based test method gets a percentage of 80%. Both are included in a high category. It can be seen from the feeling of joy of students when they are ordered to complete assignments. This feeling of not being bored quickly can also be interpreted as a sense of interest. When the student’s sense of interest is high, it can be interpreted that the student’s learning motivation is high.

The emergence of this high sense of interest is often caused by many factors, one of which is a medium or method that is of interest to students and is used by teachers to carry out learning. It is in line with research conducted by Fitria & Roziqi (2022) that during the past pandemic, student interest tended to be high when using the Educandy Platform. This platform is computer-based, so that it makes students feel interested and happy in carrying out learning.

In the indicator of independence to complete the task using the paper-based test method, a percentage of 83.60% was obtained, and when using the computer-based test method, a percentage of 77.60% was obtained. Both of which are still relatively high. With this, it is concluded that students’ motivation to complete tasks using the paper-based and computer-based test methods is relatively high.

When viewed from the percentage of student motivation in completing tasks in the data above, it can be concluded that students have high motivation in completing tasks. As stated by Sardiman (in Suharni, 2021), the characteristics of students with high motivation are diligent in facing tasks so that when given tasks by the teacher, students will complete them well; tenacious in facing difficulties and not easily getting hopeless; not easy to feel bored or tend to have a high interest in the completion of tasks; and an attitude of independence in trying to complete their tasks so that they do not have an attitude of being dependent on others, peers or devices that can be used to access or search for answers.

To increase student independence, the students need a teacher role. As written by Ratminingsih et al. (2018), teachers can facilitate student independence with self-assessment so that students can assess the limits of their abilities. Meanwhile, Mulyono (2017) said one can use reciprocal teaching to increase independence. Rachul et al. (2021) convey that independence can be achieved
through independent tasks. These things can also be supported by using assessment as a learning tool (DeLuca et al., 2020).

In addition, the length of time when using paper-based tests and computer-based test methods also affects the intrinsic motivation of these students. It can be seen from the awkwardness, anxiety, and panic among students when there is a change in the assessment method used during the pandemic from the paper-based test method to the computer-based test method. It is in line with research conducted by Suhardi (2018) that the differences in the use of paper-based tests and computer-based test methods can cause psychological disorders, such as awkwardness, and anxiety in students who are unfamiliar with these changes.

However, in this study, the opposite was found. The students’ psychological disorders tend to be lower due to the length of the pandemic, which requires students to be familiar with the computer-based assessment method. It can be seen from the motivational questionnaire data for using the computer-based assessment method after the pandemic. It can be concluded that students have a low psychological burden on test readiness indicators or are familiar with using the computer-based assessment method.

So, the findings of this study, when viewed from the average results of the two questionnaires, are that students’ motivation in completing tasks using the paper-based test method tends to be higher by 2.7% than when using the computer-based test method. The difference between students' motivation in using these two methods is small or almost non-existent. It is caused by several factors, such as intrinsic or extrinsic impulses or motivations which have slight differences. Students have been accustomed to using the computer-based test method for a long time, and the use of methods are less able to stimulate student motivation so that it makes students feel less comfortable and ready to use different methods.

After a small comparison of student motivation in completing tasks using the computer-based test and paper-based test methods was found, several factors have been mentioned. As educators, it is necessary to consider the use of appropriate assessment methods for students in learning activities, so we need to pay attention to several aspects such as human resources, teachers and students, school equipment or infrastructure, students' psychological state, material, and form of questions, as well as the readiness of students and teachers in carrying out assessments. According to Gopalan et al. (2017), motivation and learning have a very close relationship, and Berestova et al. (2022) reinforce that one of the keys to successful learning is motivation.

CONCLUSION

Based on the research that has been carried out, it can be concluded that students' learning motivation in completing tasks using the computer-based test assessment method are 81.40% (perseverance), 85.50% (tenacity in facing difficulties), 80% (not quickly feeling bored), 77.60% (independence in completing tasks). Then, an average of 81.62% with a high category is obtained. In student learning motivation in completing tasks using the paper-based test method, the results on each variable are 83.20% (perseverance), 83.50% (tenacity in facing difficulties), 85% (not quickly feeling bored), and 83.60% (independence in
completing tasks). So, an average of 83.82% is obtained and can be categorized as high. The comparison of student motivation in completing tasks using the computer-based and paper-based tests was 2.7%, with a low category.

With these results, it is recommended that teachers use this research as a reference or reading material that can increase teacher innovation regarding the selection and use of assessment methods in learning. It is also necessary to consider the advantages and disadvantages of assessment methods for student conditions and assessment materials to be presented. In addition, for subsequent researchers, this research can be used as a reference to conduct further and in-depth research on similar themes.

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HALAMAN INI SENGAJA DIKOSONGKAN