Analysis of the Level of Satisfaction with the Use of Computer Assisted Test at SMAN 1 Parang Magetan

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ABSTRACT

The use of technology in education sector provides many conveniences in carrying out learning activities. One use of technology in the education sector can be used by teaching staff to carry out evaluations after carrying out a series of learning activities. The technology that can be used can be in any form, one of which is a system that is built to facilitate the learning process from start to finish. One system that can be used is the system *Computer Assisted Test* (CAT). CAT is a system that uses computers as the main medium. In the CAT system, practice questions can be input which will be filled in by students later. This CAT system is used by students to work on practice questions. The system that has been used needs to be evaluated to determine its advantages and disadvantages. One method that can be used to analyze a system is the usability approach *User Satisfaction Quesionnaire* (UEQ). This approach uses user experience as the main aspect in system assessment and there are 6 variables assessed, namely Attractiveness (Daya Tarik), Efficiency (Efisiensi), Clarity (Tingkat Kejelasan), Dependability (Ketepatan), Stimulation (Stimulasi), and Novelty (Kebaruan). This research uses a UEQ questionnaire which will be filled in by 88 students and 12 teachers who act as research samples after working on practice questions through the CAT system. The completed questionnaire was then analyzed and it was discovered that for the Attractiveness, Efficiency, Clarity and Stimulation variables received the "Very Good" criteria, the Novelty variable "Good", and the Dependability variable "Below Average".

Keywords: Computer Assisted Tes; Learning Evaluation; Level of Satisfaction; Usability; User Satisfaction; User Satisfaction Quesionnaire

1. INTRODUCTION

Technological advances in the era of globalization affect all aspects of life and encourage the use of technology in everyday life. One aspect where technology is implemented is the educational aspect. The education system has developed to adapt to changing times. One of them was when Indonesia was hit by the Covid-19 pandemic in 2020 which caused learning activities to be carried out online or online. Adjustments to the use of technology in the educational aspect have a quite significant impact. As stated by Teguh the significant impact in question is such as utilization-learning, development of learning media, easier access to education, increased quality of learning and social justice, and has become an important foundation in advancing the education system in this country (Hidayatullah et al., 2023).

By knowing some of the impacts on education due to the use and utilization of technology, it can be understood that education is indeed very important for the continuity of a nation's civilization. This is in line with opinion Yudhistira et al who said that education is a measure of whether a nation is progressing or not, because the level of intelligence of its people plays an important role in realizing national development in all aspects (Yudhistira et al., 2020). According to Maritsa et al the use of technology in education can be interpreted as the use of a system or other technological means so that the learning process can be carried out more efficiently and concisely (Maritsa et al., 2021). That way, the planned learning objectives can be achieved well.

One form of efficiency that can be felt is the use of technology as a medium for teachers to evaluate learning after a series of learning activities are given to students. According to Magdalena et al evaluation itself is defined as a process for collecting, analyzing and interpreting all forms of information in order to determine the achievement of learning objectives that have been carried out by students (Magdalena et al., 2023). One of the media that can be used to carry out evaluations in learning is the use of technology, namely by building a system in which there are questions which are then worked on by students. Use of systems such as *e-learning* and the like certainly make it

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easier for both students and teachers to quickly find out the successful learning achievements that have been carried out.

The use of technology in the field of education was previously carried out by Okke Rosmaladewi, et al in 2023 with the title "Implementation of Computer Based Test (CBT) Exam Applications at SMK Piramida Bandung Regency". The study aims to make it easier for teachers to evaluate teaching outcomes using the CBT system. That way the correction results from the answers to the exam or test will be more objective, careful, and accurate. The result of this research is the realization of modernization and efficiency of time and cost in the implementation of the evaluation exam (Rosmaladewi et al., 2023)

In this research, the CAT system will be analyzed using the usability approach *User Experience Questionnaire* (UEQ). UEQ is an approach that can be used to determine the level of user satisfaction with the system used, so that it will make it easier for developers to understand the UX of an information system design (Karaman et al., 2022). With this method, the user experience (*user experience*) becomes important (Putra et al., 2021). This opinion also in line with Syanugiri et al that user experience is an important aspect of developing technologies that have already been used (Syanugiri et al., 2023). In this approach there are 6 variables that will be studied, namely Attractiveness (Daya Tarik*)*, Efficiency (Efisiensi), Clarity Level (Tingkat Kejelasan), *Dependability* (Ketepatan), Stimulation (Stimulasi), and Novelty (Kebaruan) (Khuntari, 2022). According to Jamilah & Aliyadi these variables will be analyzed using a questionnaire consisting of 26 statement items (Karaman & Aliyadi, 2023).

Based on the explanation above, it is necessary to equalize the use of technology in educational aspects, especially in the learning evaluation process. By utilizing technology in education can have many positive impacts on teachers and students. In this study, the CAT system used will be analyzed for the level of user satisfaction. This aims to improve the performance of the CAT system whose assessment is in accordance with the User Experience Quesionnaire (UEQ) approach assessment standards.

2. LITERATURE REVIEW

One technology-based system that can be used by teachers to evaluate learning is *Computer Assisted Test* (CAT). *Computer Assisted Test* is a multimedia-based application using a computer as a tool (Karaman et al., 2022). CAT can be used to carry out various computer-based exams or tests. In its implementation, according to Jamilah Karaman et al the exam questions are first input into a computer that is preloaded with the CAT system (Karaman et al., 2021). The CAT system itself was first used by the National Civil Service Agency (BKN) in 2013, but it was only in 2014 that this system was used en masse (Karaman et al., 2021).

The use of CAT can be applied in education, where one application can be used to evaluate learning. One school that has used the CAT system for learning evaluation is SMAN 1 Parang, Magetan. This system is used by students at SMAN 1 Parang, Magetan to take part in learning evaluations. When using it for the first time, it certainly needs to be evaluated in order to improve the performance of the system itself. There are many methods that can be used to evaluate a system, one of which is the usability method. Usability is an element of usability which is related to the extent of the usefulness of a system when it is used by the public or users (Karaman, 2020).

Usability itself according to Irfani & Sartika is a method of measuring an application and functions as a tool for measuring the suitability of a system or product used by users (Irfani & Sartika, 2023). Based on the International Standard Organization (ISO), usability has at least three main aspects that must be measured, namely effectiveness, efficiency and satisfaction. Effectiveness relates to the extent to which a system or product can do what its users want easily. Meanwhile, efficiency according to Suharsih et al is related to the user's speed when running or using the system or product being used, and satisfaction is related to the user's perception or opinion about the system or product that has been used (Suharsih et al., 2021). This is in line with Farauqi's opinion that usability testing of a system or product is a type of assessment that involves users interacting, collecting data, and analyzing the system used (Maulina, 2023).

3. METHOD

This research uses the usability method with the UEQ approach. The research began by building a CAT system that would be used by users who acted as respondents consisting of practice questions for evaluation in learning. The stages in this study can be seen from the following diagram:

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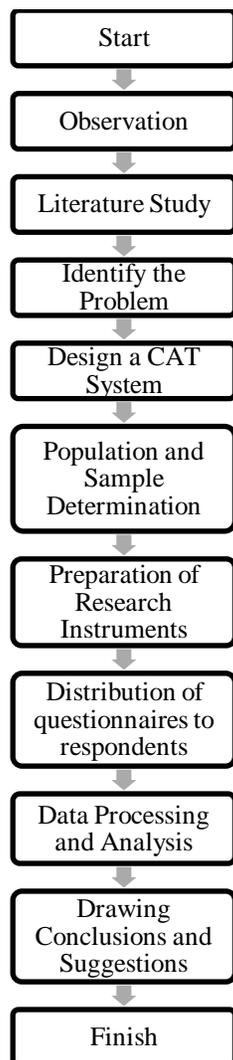
Fig 1. Research Flowchart

Users of this CAT system are students at SMAN 1 Parang, Magetan. To determine the sample, this study used the Slovin formula as follows:

$$n = \frac{N}{1+N(e)^2} \quad \text{(Ningsih \& Tania, 2023)}$$

Information:
n = Sample size
N = Population size
e^2 = Allowance for error inaccuracy 0,1

The sample in this study amounted to 100 people consisting of 88 students and 12 teachers who acted as respondents with details of 74 males and 26 females. The research instrument used in this study is in the form of a questionnaire in accordance with the provisions of the UEQ approach. The questionnaire itself consists of 26

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statements and comes with a rating scale. In the UEQ approach the questionnaire uses a range of scales. The score starts from 1 to 7 and has different data conversions according to each statement. The following is the questionnaire used in this UEQ approach:

Table 1. UEQ Quesionnaire

Statement	1	2	3	4	5	6	7	Statement
Troublesome								Pleasant
Incomprehensible								Understandable
Creative								Monotonous
Easy to learn								Difficult to learn
Beneficial								Less useful
Boring								Exciting
Not attractive								Attract
Unpredictable								Predictable
Fast								Slow
Creative								Conventional
Obstruct								Support
Good								Bad
Complicated								Simple
Dislike								Exciting
common								Front
Uncomfortable								Comfortable
Safe								Not safe
Motivating								Not motivating
Meets expectations								Doesn't meet expectations
Not efficient								Efficient
Clear								Confusing
Not practical								Practical
Organized								Untidy
Attractive								Not attractive
User friendly								Not user friendly
Conservative								Innovative

Furthermore, for scales 1 to 3 the data conversions are -3, -2, and -1 respectively, while for scale 4 the data conversions are 0. For scales 5 to 7 the data conversions are +1, +2, respectively. and +3 Jamilah & Aliyadi, 2023 (Karaman & Aliyadi, 2023). After being calculated and analyzed, the results obtained will be adjusted to the assessment category. There are 5 categories in the assessment, namely "Very Good", "Good", "Above Average", "Below Average", "Poor" where each criterion has its own specified value.

4. RESULT

This research activity was carried out with the aim of knowing the level of user satisfaction with the CAT system used. The users referred to in this research are students at SMAN 1 Parang, Magetan who use the CAT system as a method for evaluating learning. The purpose of using CAT as an examination medium is to modernize learning by utilizing existing technology in the school environment. In addition, this can also reduce the budget as a result of using paper used as an answer sheet. The implementation of exams is also more efficient because teachers no longer need to correct student answer sheets because with the CAT system exam results can be known immediately at that time. Before knowing the results of the analysis of the satisfaction level of the CAT system used, as follows:

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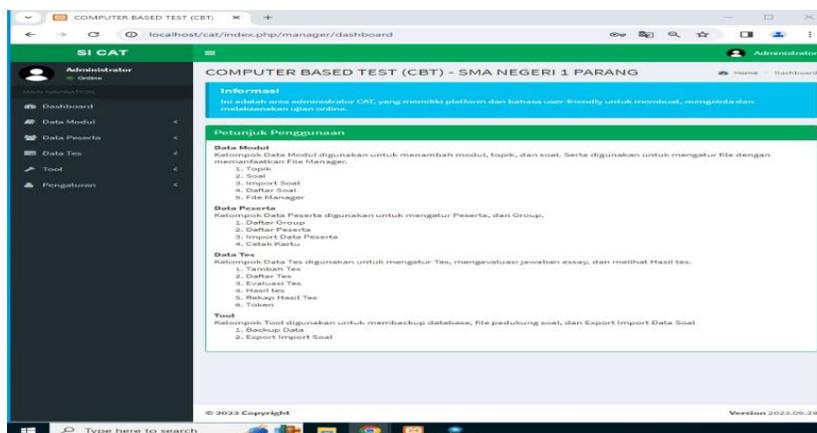
Fig. 2 Admin Login Page of CAT System

The image above is the login page of the CAT system admin used. On this page can be seen instructions for using the system and several other menu options such as Dashboard, Module Data, Participant Data, Test Data, Tools, and Settings located on the left side of the user.
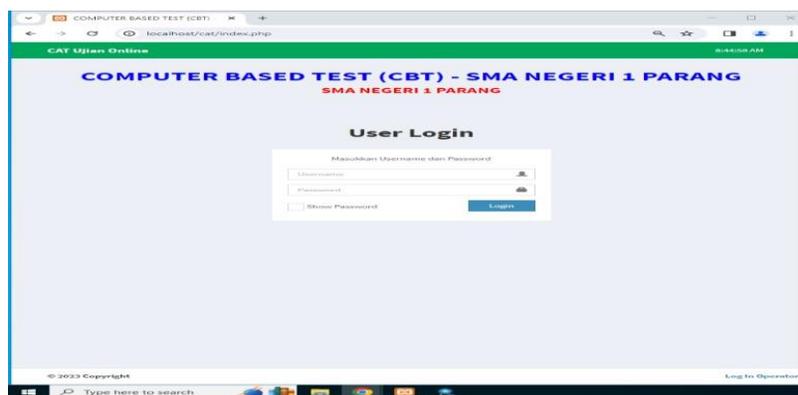
Fig. 3 User Login Page of CAT System

The picture above is the examinee login page. On this page, participants will be asked to fill in their Username and Password first and then click 'Login' in order to access the exam questions according to the subjects to be tested.

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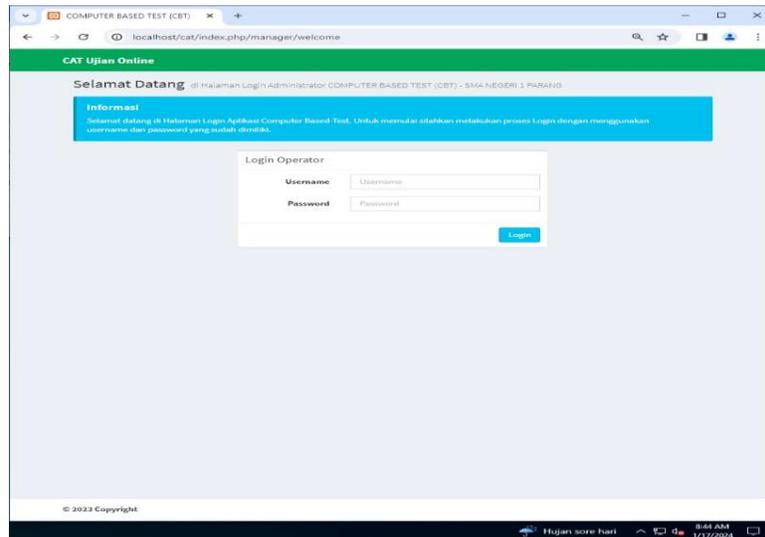
Fig. 4 Operator Page of CAT System

In addition to students and admins, computer-based exams also require operator assistance. The operator is tasked with ensuring computer-based evaluation activities run smoothly. On this page, the operator will also be asked for a Username and Password in order to enter the CAT system.
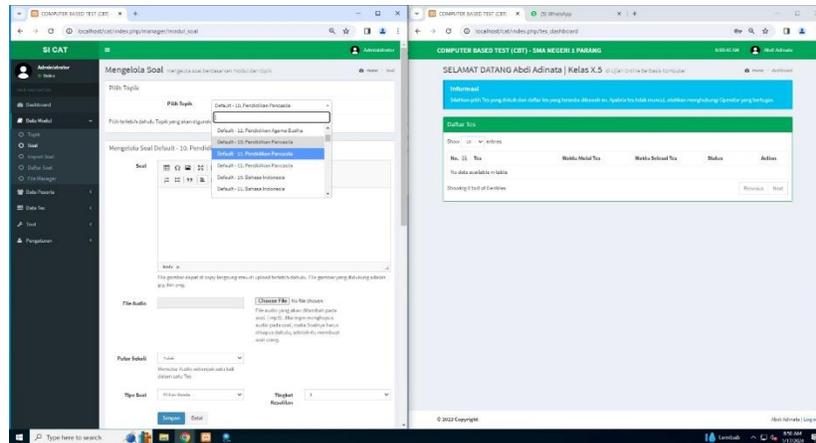
Fig. 5 Question Selection Page According to Subjects

From some of the pictures above it can be seen that students in this case as the user work on practice questions using computer assistance. It can also be seen that students can work on practice questions more efficiently because they don't use a lot of paper. Apart from that, from the pictures above it can also be seen that the teacher and researcher together input learning tools including practice questions that will be filled in by students and teachers. After the students answer all the exam questions, the results can be known immediately. After that students and teachers will be asked to fill out a questionnaire to analyze the system they have used. After the questionnaire is filled out, the results will be analyzed using the UEQ approach described above. The questionnaire filled out by students and teachers before analysis can be seen in the following figure:

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	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	Q17	Q18	Q19	Q20	Q21	Q22	Q23	Q24	Q25	Q26
R1	6	5	5	4	5	4	5	4	6	4	1	5	5	4	4	4	4	4	5	4	5	5	5	4	4	5
R2	5	5	6	4	5	5	4	4	6	4	1	5	5	4	4	4	4	4	5	4	5	5	5	4	4	5
R3	5	5	5	5	5	4	5	5	5	4	2	5	5	4	4	4	4	3	5	4	5	5	5	4	4	5
R4	5	5	5	4	5	5	5	4	5	4	3	5	5	4	4	4	5	4	4	4	5	5	5	3	4	5
R5	6	6	5	5	5	5	5	4	6	4	2	5	6	4	3	4	3	3	5	5	4	5	5	3	5	5
R6	6	5	6	6	6	5	5	5	6	5	2	5	5	4	3	4	3	4	4	4	5	5	5	4	4	4
R7	5	6	6	4	5	5	5	4	6	4	3	4	5	4	4	4	4	4	4	5	5	5	4	4	4	4
R8	6	6	6	5	5	6	6	4	6	3	4	5	5	3	3	5	4	3	5	4	4	4	5	3	4	4
R9	5	5	5	6	6	5	6	5	5	4	4	5	4	4	3	5	5	4	4	4	5	5	5	4	4	5
R10	5	6	5	4	6	5	5	5	6	5	3	4	4	4	3	5	4	3	4	5	4	5	5	4	4	4
R11	6	6	6	5	6	4	4	5	5	6	3	5	5	5	3	4	5	4	5	4	5	6	5	3	5	4
R12	5	6	5	4	7	5	5	4	6	4	3	4	5	5	4	5	4	5	4	5	6	5	5	3	4	5
R13	5	5	5	6	5	4	6	4	7	4	4	5	6	4	4	5	4	5	4	4	5	5	5	3	4	4
R14	5	5	6	4	6	5	6	5	6	3	4	5	5	4	4	5	4	4	4	5	5	6	5	4	5	5
R15	6	5	5	4	7	6	6	4	5	3	3	4	4	4	4	5	5	3	5	4	6	5	5	4	5	4
R16	5	6	5	4	5	6	5	5	6	4	4	4	5	4	4	6	5	4	5	4	5	5	5	5	5	5
R17	5	5	6	6	7	5	5	6	4	5	3	4	6	4	3	4	5	4	4	4	4	4	5	4	4	5
R18	6	5	5	5	6	5	6	5	3	4	2	4	5	4	3	5	4	3	4	5	5	5	5	5	4	5
R19	6	6	6	5	6	6	5	4	7	5	3	5	4	5	4	6	5	3	6	4	6	6	5	4	5	5
R20	5	6	5	5	6	6	4	5	6	4	4	4	5	4	4	6	4	4	4	5	5	6	5	5	4	4
R21	5	5	5	6	6	6	5	4	6	4	3	5	5	4	3	6	5	3	5	4	4	5	5	5	5	4
R22	6	5	5	5	5	6	5	4	6	4	2	4	5	5	3	5	4	5	6	5	5	5	5	4	4	4
R23	6	6	4	6	5	6	6	5	5	5	3	5	5	4	4	5	5	4	5	5	6	4	5	4	5	5
R24	5	5	4	5	5	5	7	5	6	4	4	5	6	4	4	4	4	3	5	5	5	5	5	3	5	5
R25	6	6	5	5	4	4	6	6	7	5	3	5	5	4	3	6	4	4	4	5	5	5	4	4	4	4
R26	5	5	4	4	4	4	6	5	5	4	4	5	6	5	4	6	4	4	5	5	5	6	5	4	4	5
R27	5	6	5	5	6	5	6	5	6	5	3	4	5	5	3	6	4	3	6	4	6	6	5	3	5	4
R28	6	5	6	6	7	4	7	4	6	5	2	5	5	5	4	5	4	4	5	4	5	5	5	3	5	4
R29	6	5	4	6	5	5	6	5	4	5	2	4	4	4	3	6	4	3	5	4	5	4	5	3	4	5
R30	6	5	4	5	4	5	6	6	3	4	2	4	5	5	4	5	4	3	5	4	4	5	5	3	5	4
R31	5	6	6	5	5	6	6	4	4	4	3	5	4	4	4	4	4	4	5	4	4	5	5	4	4	5
R32	6	5	4	4	4	6	5	4	3	5	4	5	5	5	4	5	4	4	4	5	4	6	5	5	4	5
R33	5	6	5	5	4	6	6	4	5	4	4	5	5	4	4	6	5	3	5	4	5	6	5	4	4	5
R34	6	5	6	5	5	5	6	4	4	5	4	4	4	5	4	6	5	4	6	5	6	5	5	3	5	4
R35	5	5	4	5	6	4	5	4	5	4	3	5	5	4	3	5	4	3	5	4	5	6	5	3	5	4
R36	5	5	5	6	5	4	6	4	7	4	4	5	6	4	4	5	4	5	4	4	5	5	5	3	4	4
R37	5	5	6	4	6	5	6	5	6	3	3	4	5	3	4	5	4	4	4	5	5	6	5	4	5	5
R38	6	5	5	4	7	6	6	4	5	3	3	4	4	4	4	5	5	3	5	4	6	5	5	4	5	4
R39	5	6	5	4	5	6	5	5	6	4	4	4	5	4	4	6	5	4	5	4	5	5	5	5	5	5
R40	5	5	6	6	7	5	5	6	4	5	3	4	6	4	3	4	5	4	4	4	4	5	4	4	4	5
R41	6	5	5	5	6	5	6	5	3	4	2	4	5	4	3	5	4	3	4	5	5	5	5	5	4	5
R42	6	6	6	5	6	6	5	4	7	5	3	5	4	5	4	6	5	3	6	4	6	6	5	4	5	5
R43	5	6	5	5	6	6	4	5	6	4	4	4	5	4	4	6	4	4	5	5	6	5	5	5	4	4
R44	5	5	5	6	6	6	5	4	6	4	3	5	5	4	3	6	5	3	5	4	4	5	5	5	4	4
R45	6	5	5	5	5	6	5	4	6	4	2	4	5	5	3	5	4	5	6	5	5	5	5	4	4	4
R46	6	6	4	6	5	6	6	5	5	5	3	5	5	4	4	5	5	4	5	5	6	4	5	4	5	5
R47	5	5	4	5	5	5	7	5	6	4	4	5	6	4	4	4	4	3	5	5	5	5	5	3	5	5

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R48	6	6	5	5	4	4	6	6	7	5	3	5	5	4	3	6	4	4	4	4	5	5	5	4	4	4
R49	5	5	4	4	4	4	6	5	5	4	4	5	6	5	4	6	4	4	5	5	5	6	5	4	4	5
R50	5	5	4	5	5	5	7	5	6	4	4	5	6	4	4	4	4	3	5	5	5	5	5	3	5	5
R51	6	6	5	5	4	4	6	6	7	5	3	5	5	4	3	6	4	4	4	4	5	5	5	4	4	4
R52	5	5	4	4	4	4	6	5	5	4	4	5	6	5	4	6	4	4	5	5	5	6	5	4	4	5
R53	5	6	5	5	6	5	6	5	6	5	3	4	5	5	3	6	4	3	6	4	6	6	5	3	5	4
R54	6	5	6	6	7	4	7	4	6	5	2	5	5	5	4	5	4	4	5	4	5	5	5	3	5	4
R55	6	5	4	6	5	5	6	5	4	5	2	4	4	4	3	6	4	3	5	4	5	4	5	3	4	5
R56	6	5	4	5	4	5	6	6	3	4	2	4	5	5	4	5	4	3	5	4	4	5	5	3	5	4
R57	5	6	6	5	5	6	6	4	4	4	3	5	4	4	4	4	4	4	5	4	4	5	5	4	4	5
R58	6	5	4	4	4	6	5	4	3	5	4	5	5	5	4	5	4	4	4	5	4	6	5	5	4	5
R59	5	6	5	5	4	6	6	4	5	4	4	5	5	4	4	6	5	3	5	4	5	6	5	4	4	5
R60	6	5	6	5	5	5	6	4	5	4	4	5	4	5	4	6	5	4	6	5	6	5	5	3	5	4
R61	5	5	4	5	6	4	5	4	5	4	3	5	5	4	3	5	4	3	5	4	5	6	5	3	5	4
R62	6	5	5	4	5	4	5	4	6	4	1	5	5	4	4	4	4	4	5	4	5	5	5	4	4	5
R63	5	5	6	4	5	5	4	4	6	4	1	5	5	4	4	4	4	4	5	4	5	5	5	4	4	5
R64	5	5	5	5	5	4	5	5	5	4	2	5	5	4	4	4	4	3	5	4	5	5	5	4	4	5
R65	5	5	5	4	5	5	5	4	5	4	3	5	5	4	4	5	4	4	4	5	5	5	5	3	4	5
R66	6	6	5	5	5	5	5	4	6	4	2	5	6	4	3	4	3	3	5	5	4	5	5	3	5	5
R67	6	5	6	6	6	5	5	5	6	5	2	5	5	4	3	4	3	4	4	4	5	5	5	4	4	4
R68	5	6	6	4	5	5	5	4	6	4	3	4	5	4	4	4	4	4	5	5	5	5	5	4	4	4
R69	6	6	5	5	6	6	4	4	6	3	4	5	5	3	3	5	4	3	5	4	4	4	5	3	4	4
R70	5	5	5	6	6	5	6	5	5	4	4	5	4	4	4	3	5	5	4	4	5	5	5	4	4	5
R71	5	6	5	4	6	5	5	5	6	5	3	4	4	4	3	5	4	3	4	5	4	5	5	4	4	4
R72	6	6	6	5	6	4	4	5	5	6	3	5	5	5	3	4	5	4	5	4	5	6	5	3	5	4
R73	5	6	5	4	7	5	5	4	6	4	3	4	5	5	4	5	4	5	4	5	6	5	5	3	4	5
R74	5	5	5	6	5	4	6	4	7	4	4	5	6	4	4	5	4	5	4	4	5	5	5	3	4	4
R75	5	5	6	4	6	5	6	5	6	3	3	4	5	3	4	5	4	4	4	5	5	6	5	4	5	5
R76	6	5	5	4	7	6	6	4	5	3	3	4	4	4	4	5	5	3	5	4	6	5	5	4	5	4
R77	5	6	5	4	5	6	5	5	6	4	4	4	5	4	4	6	5	4	5	4	5	5	5	5	5	5
R78	5	5	6	6	7	5	5	6	4	5	3	4	6	4	3	4	5	4	4	4	4	5	4	4	4	5
R79	6	5	5	5	6	5	6	5	3	4	2	4	5	4	3	5	4	3	4	5	5	5	5	4	4	5
R80	6	6	6	5	6	6	5	4	7	5	3	5	4	5	4	6	5	3	6	4	6	6	5	4	5	5
R81	5	6	5	5	6	6	4	5	6	4	4	4	5	4	4	6	4	4	4	5	5	6	5	5	4	4
R82	5	5	5	6	6	6	5	4	6	4	3	5	5	4	3	6	5	3	5	4	4	5	5	5	5	4
R83	6	5	5	5	5	6	5	4	6	4	2	4	5	5	3	5	4	5	6	5	5	5	5	4	4	4
R84	6	6	4	6	5	6	6	5	5	5	3	5	5	4	4	5	5	4	5	5	6	4	5	4	4	5
R85	5	5	4	5	5	5	7	5	6	4	4	5	6	4	4	4	4	3	5	5	5	5	5	3	5	5
R86	6	6	5	5	4	4	6	6	7	5	3	5	5	4	3	6	4	4	4	4	5	5	5	4	4	4
R87	5	5	4	4	4	4	6	5	5	4	4	5	6	5	4	6	4	4	5	5	5	6	5	4	4	5
R88	5	6	5	5	6	5	6	5	3	4	5	5	3	6	4	3	6	4	6	6	5	3	5	4	5	5
R89	6	5	6	6	7	4	7	4	6	5	2	5	5	5	4	5	4	4	5	4	5	5	5	3	5	4
R90	6	5	4	6	5	5	6	5	4	5	2	4	4	4	3	6	4	3	5	4	5	4	5	3	5	5
R91	6	5	4	5	4	5	6	6	3	4	2	4	5	5	4	5	4	3	5	4	4	5	5	3	5	4
R92	5	5	4	5	5	5	7	5	6	4	4	5	6	4	4	4	4	3	5	5	5	5	5	3	5	5
R93	6	6	5	5	4	4	6	6	7	5	3	5	5	4	3	6	4	4	4	4	5	5	5	4	4	4
R94	5	5	4	4	4	4	6	5	5	4	4	5	6	5	4	6	4	4	5	5	5	6	5	4	4	5
R95	5	6	5	5	6	5	6	5	6	5	3	4	5	5	3	6	4	3	6	4	6	6	5	3	5	4
R96	6	5	6	6	7	4	7	4	6	5	2	5	5	5	4	5	4	4	5	4	5	5	5	3	5	4
R97	6	5	4	6	5	5	6	5	4	5	2	4	4	4	3	6	4	3	5	4	5	4	5	3	4	5
R98	6	5	4	5	4	5	6	6	3	4	2	4	5	5	4	5	4	3	5	4	4	5	5	3	5	4
R99	5	6	6	5	5	6	6	4	4	4	3	5	4	4	4	4	4	4	5	4	4	5	5	4	4	5
R100	6	5	4	4	4	6	5	4	3	5	4	5	5	5	4	5	4	4	4	5	4	6	5	5	4	5

Fig. 6 Questionnaire Data

The image above is then converted according to existing conditions. The first step taken after the questionnaire results are converted is to sort the statement numbers according to aspects of the UEQ method approach. As for the Attractiveness aspect, they are numbers 1, 12, 14, 16, 24, and 25. For the Efficiency aspect, it is contained in numbers 9, 20, 22, and 23. While the Clarity aspect is contained in numbers 2, 3, 4, 13, and 21. The Dependability aspect is listed at numbers 8, 11, 17, and 19. Stimulation aspects are numbered 5, 6, 7, and 18. Finally, the Novelty aspect is at numbers 3, 10, 15, and 26. This sorting aims to make it easier to do calculations for

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each aspect. After each aspect is calculated, it can be known the score or value of each aspect. The calculation results after conversion can be seen in the following table:

Table 2
Questionnaire Calculation Results After Conversion

Data Type	Criterias					
	Attractiveness	Efficiency	Clarity	Dependability	Stimulation	Novalty
Average aspects per respondent	9,97	17,4	17,6	7,13	15,6	6,17
Total item value per scale	359	385	529	80	366	148
Overall Average per aspect	3,59	3,85	5,29	0,80	3,66	1,48

The table above is the result of calculations from each aspect. After knowing the score or value of each aspect, the next step taken is to adjust to the criteria of the provisions of the UEQ approach. The criteria and conditions of the UEQ approach for more details can be seen in the following table:

Table 3. UEQ Criteria and Conditions

Criterias	Conditions
Very Good	>1,75
Good	>1,20
Above average	>1,17
Below average	>0,70
Poor	<0,70

The results of the analysis of the level of user satisfaction with the CAT system used can be seen in the following table:

Table 4
Level of User Satisfaction with The CAT System

Aspects	Average of All Aspects	Criteria
Attractiveness	3,59	Very Good
Efficiency	3,85	Very Good
Clarity	5,29	Very Good
Dependability	0,80	Below Average
Stimulation	3,66	Very Good
Novalty	1,48	Good

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DISCUSSIONS

The use of the system in learning does not only use the CAT system. Many similar systems can be used in the implementation of learning. A similar system that can also be used in addition to CAT is the Computer Based Test (CBT). The use of this system is contained in a service journal conducted by Yudi Sutarso, et al in 2023 with the title "Utilization of Computer Based Test Applications to Measure Student Achievement in Islamic School Learning". The service aims to develop learning using the CBT software system, provide training, and mentoring to the parties involved so that the use of CBT can be carried out in a sustainable manner. CBT itself based on Sutarso, et al is a test whose implementation requires the help of computer technology (Sutarso et al., 2023). The results of these service activities include the first provision of CBT software that is in accordance with the needs of Islamic schools, the second through this service activity is able to improve the competence of teachers and school information system managers, and the third disseminates community service programs through various types of media to increase knowledge and community support for similar programs.

Another similar research was also conducted by Muhammad Wahyu Suryandi Adam and Hasni with the title "Development of Learning Outcome Assessment Instruments Using Computer Based Test at SMA Negeri 10 Sidrap" which was conducted in 2023. This study aims to develop learning outcome assessment instrument products using valid, practical, and effective Computer Based Tests to help teachers accelerate the distribution of practice questions and find out the value of student learning outcomes faster. The choice of CBT itself is because it provides advantages compared to the implementation of tests with paper models or pencil tests because CBT is easier to use and more efficient (Adam & Hasni, 2023). The result of this research is that the development of learning outcome assessment instruments using CBT can make it easier for teachers to recapitulate the value of student learning outcomes quickly. This system is also considered valid, practical, and effective by expert validators and teacher and student responses who say that learning assessments are said to be successful based on good learning outcomes.

5. CONCLUSION

The use of technology can be used in educational aspects. One of them can be used to evaluate learning. The use of technology in question is a system that can be used to work on questions with the help of a computer as the main medium. The system that has been used is then analyzed to determine the level of user satisfaction with the CAT system. The purpose of using CAT as an examination medium is to modernize learning by utilizing existing technology in the school environment. In addition, this can also reduce the budget as a result of using paper used as an answer sheet. The implementation of exams is also more efficient because teachers no longer need to correct student answer sheets because with the CAT system exam results can be known immediately at that time.In this research, the CAT system that has been used is analyzed using the usability approach*User Satisfaction Questionnaire* (UEQ). This approach uses a questionnaire as a data collection tool which is filled in by students as users. The results of the analysis show that the Attractiveness, Efficiency, Clarity and Stimulation variables received the "Very Good" criteria, the Novelty variable "Good", and the Dependability variable "Below Average".

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