

# **CHAPTER I**

## **INTRODUCTION**

### **1.1.Research Background.**

Nowadays, technology has a significant impact on all aspects of human life. Technology development makes it easier and more independent for everyone to use technology in everyday life, especially in improving learning media and assessments in schools. So it requires teachers to always be up to date with technological developments and it has changed the ways teachers and assess their students. Technological developments have given rise to various kinds of learning or assessment media that are emerging today. A study evaluating the effectiveness of mobile learning found that it produced 85.94% positive outcomes, with 84.38% of students reporting increased motivation (Nasir & Nirfayanti, 2019). The students found the Android-based Exam Browser to be a helpful, straightforward, and user-friendly platform for conducting online exams. It positively impacted their performance by enhancing their speed in answering questions, improving their test outcomes, and making the exam process more manageable. This aligns with the findings of Yin et al. (2015) who stated in their research that media technology or mobile learning is more accessible and helps students to be more interested in learning. The development of information and communication technology in developing learning media based on Android smartphones certainly requires software (software/applications) to create it. Some software that can be used by teachers to develop their own Android-based media includes Google

Form, Microsoft PowerPoint, Articulate Storyline, Unity, Smart Apps Creator, etc.

Technology is becoming increasingly important and beneficial in almost every field, including education. One of the things that influence the quality of education is the use of information and communication technology. Examinations have emerged as one of the most effective methods for measuring student learning achievement in schools. Technology can be utilized for regular assessments, midterm evaluations, and end-of-semester examinations.

There are several assessment techniques and tools that can be used as a means to obtain information about the student's condition. Various uses techniques and tools are adapted to the assessment objectives, time available, nature of the task what students do, and the amount of learning material that has been done be delivered. Assessment techniques that are possible and can be used easily by teachers, for example: tests (written, verbal, action), observation or observing, and interview. Gronlund, & Waugh, (2019) stated that the A test consists of a series of standardized items that must be administered following specific guidelines to produce valid and reliable results. Evaluators need a solid understanding of technical processes to design and apply suitable assessment formats tailored to the measurement objectives. This information is required in interpreting and making decisions for educational purposes. Evaluator requires internal skills identify and understand various assessment perspectives, good assessment contextual and process and assessment results. Because assessment is central control the success of educational programs.

In the 2014/2015 academic year, regulations and the development of the use of technology in the world of education begins with its implementation UNBK (Computer Based National Examination) that the exam is carried out in two method, namely by written mechanism or Paper Based Test (PBT or can be done by Computer-Based Mechanism or what is known as Computer Based Test (CBT). Alderson (2017) notes that PBTs do not offer flexibility or customization, as every test-taker is given the same paper, irrespective of their individual requirements. This uniform approach is a drawback, especially when assessing diverse groups or individuals with specific learning needs. With the advancement of technology, the government has transitioned from paper-based testing to a computer-based national examination system, commonly known as the Computer-Based Test (CBT), as part of its policy implementation.

With current technological advancements, addressing the issue of assessment invalidity can be achieved by replacing the traditional paper-based test system with a computer-based national examination system, known as the Computer-Based Test (CBT).

A Computer Based Test (CBT) was a type of assessment conducted using a computer as the primary medium. The questions in CBT are presented and selected through a computerized process, ensuring that each test-taker receives a unique set of questions. This system differs from the traditional Paper-Based Test (PBT) primarily in terms of the tools used. In a CBT, participants select answers directly on a computer screen, while in a PBT, examinees must mark their answers by shading dots on a physical answer sheet (Raimon et al. in Ali and Inayah, 2021).

To enhance the utilization of information and communication technology in education, many schools have started implementing Android-based platforms for conducting online exams. One example is the Android-based E-Ujian Browser, a secure web browser designed specifically for online examinations. Operating in lock mode, it restricts access to other pages, blocks unnecessary programs, disables operating system key combinations and functions, and prevents access to the gallery, ensuring a secure testing environment at all times (Putra & Pamungkas, 2020). As a result, the Android-based E-Ujian Browser is anticipated to reduce the chances of academic dishonesty among students (Putra, Maulana, & Iriani, 2019). Additionally, this system is regarded as highly advantageous due to its practicality, cost-efficiency, and time-saving benefits (Chikmah, 2016).

Wang & Wang (2020) describe Android's architecture as comprising a Linux kernel, a software stack for mobile applications, and a comprehensive development environment that allows developers to build apps for various mobile devices, solidifying its position as a dominant global mobile platform. In addition, Khan et al. (2021) state that Android is an operating system based on the Linux kernel, providing features such as middleware and APIs that facilitate the smooth development and operation of mobile applications. They emphasize Android's global dominance as a mobile OS, attributing its success to its open-source nature and extensive application ecosystem. Today, the media used is one of the most widely used operating systems on smartphones and mobile devices. Evaluation is done by displaying questions and answering them on Android media. The number of resources and features provided makes Android applications easy to develop.

The use of Android in schools during semester exams has become a topic that is increasingly discussed in the context of modern education. In general, there are two different points of view regarding this issue.

First, some parties may see the use of cellphones in final examination as a useful tool. In this digital era, cellphones have become a common tool used by students to access information, take notes, or even download learning materials. In an exam context, using a cell phone can help students to access relevant references or resources they may need to answer questions better. In addition, the use of cellphones can also help facilitate online exams or other technology-based exams, which may be more efficient and environmentally friendly than paper exams.

On the other Hand, there are also concerns about potential for cheating or interference that may occur due to the use of cellphones during the final examination. Students can use cell phones to communicate with their friends, search for answers online, or even take photos of exam questions and send them to others. This can threaten the integrity of the exam and reduce fairness in student assessment. Apart from that, the use of cell phones in class during exams can also disturb students' concentration and disrupt teaching and learning activities.

Therefore, the use of cellphones in schools during final examination is a complex issue that requires careful consideration. Clear policies and strict implementation of rules may be needed to regulate mobile phone use during exams, while still considering the benefits technology can bring to the learning process. Apart from that, educators also need to provide education about digital ethics and responsible use of technology to students, to ensure that the use of

cellphones at school during exams can be carried out with high integrity and effectiveness.

An example of an application developed for evaluation purposes is the Android-based *e-Ujian* application, which has been implemented at SMP Attayyibah Kerinci, a junior high school in the Kerinci district. This school has been utilizing the application since 2022 to leverage technological advancements, particularly since most students already own Android devices. SMP Attayyibah Kerinci was selected as the research site because it stands out as the only school in the Air Hangat Barat sub-district that has adopted Android-based evaluation methods.

The Android-based *e-Ujian* application, often referred to as a mobile-based exam, is conducted via smartphones or tablets using a dedicated mobile application for Android or iOS. A survey conducted by SMP Attayyibah Kerinci revealed that all 226 students at the school own Android devices. This widespread access encouraged the school principal to implement the Android-based *e-Ujian* application, as it ensured smooth adoption without significant challenges. Furthermore, the use of this application eliminates the need for printing and paper, making it a cost-effective and time-saving solution with a practical and efficient process.

SMP Attayyibah Kerinci has implemented the Android-based application *e-Ujian* for conducting final examinations. Based on observations and interviews with the headmaster, examiners, technicians, and several students, it was found that the use of the Android-based application *e-Ujian* was effective. It

successfully minimized cheating, proved to be cost-efficient, and delivered favorable exam results.

Based on the aforementioned phenomenon, the researcher is interested in conducting research at SMP Atthayyibah Kerinci for the academic years 2023–2024. This is because students used the Android-based Application *e-Ujian* to complete the final examination. The researcher wants to learn more about the opinions of students regarding the use of the Android-based Application *e-Ujian* during the final examination at SMP Atthayyibah Kerinci in the academic years 2023–2024.

### **1.2. Research Question**

The researcher identified the study problem in context of this study, which become the discussions concern by presenting this problem: What is the Perception of SMP Atthayyibah students toward the use of *e-Ujian* Application (in an Adroid-based smartphone) for their final examination?

### **1.3. Objectives of the Research**

The objective of this research is to describe Students' Perceptions of the use of the Android-based Application *e-Ujian* for the final examination

### **1.4. Limitations of the research.**

Regarding the objective of optimizing this study, the researcher limits the study to students' feelings about their experience with the use of the Android-Based Application *e-Ujian* for the final examinations. This study is also to observing 226 at ninth grade students of SMP Atthayyibah Kerinci, who were selected totally who had taken the online final examination using the Android-based Application *e-Ujian*.

### **1.5. Significances of the research.**

With the development of the Android-based Application *e-Ujian*, there is great potential to change the examination and evaluation landscape at the junior high school level. Along with advances in technology, this platform promises to make the exam process easier and improve the quality of student learning evaluations in the middle school semester exams. By adopting the Android-based Application *e-Ujian*, it is hoped that various obstacles that may arise in the examination process can be overcome. One of the main advantages is the flexibility and mobility provided by this application. Students can access exam materials from their Android devices easily. It also provides an alternative for schools to increase administrative efficiency and reduce printing and distribution costs.

Identifying student needs: Understanding Students' Perceptions of the Android-based Application *e-Ujian* can help developers identify student needs and preferences when using the tool. This can help in designing features that are more appropriate and relevant to their needs.

Improve user experience: By understanding how students respond to and use the Android-based Application *e-Ujian*, developers can make necessary adjustments to improve the user experience. This includes user interface improvements, performance improvements, and providing additional features desired by students.

Overall, final examining students' perceptions of the use of Android-based Application *e-Ujian* are critical to ensuring the successful implementation of this technology in education. By understanding students' needs, preferences, and



responses, developers can design and develop applications that better suit their needs, thereby increasing the effectiveness of learning and evaluation in schools.

#### **1.6. Definition of Key Term.**

- **Perception:** Perception are: 1) The way you perceive something and your perspective on how it is. 2) The way you interpret things through your senses, such as sight and hearing. 3) The natural ability to quickly understand or grasp information. Based on the explanation above, the author concludes that perception is an individual's opinion formed through their senses, interpreting the environment and transforming the data into meaningful insights (Qiong, 2017).
- **Android-based Application *e-Ujian*:** The Android-based *e-Ujian* application is a secure web browser designed for online examinations. It operates in lock mode, which prevents the opening of any other pages, switching to unrelated programs, or using operating system-specific key combinations and functions, ensuring the browser remains secure at all times and preventing access to galleries (Pamungkas, 2020).
- **Technology Acceptance Model (TAM):** The Technology Acceptance Model (TAM) is derived from the Theory of Reasoned Action Model (TRA) and was developed by Fred D. Davis in 1986. This model explains how users accept and adopt new technology. TAM is an information systems theory that illustrates the process through which users come to accept and use technology (Wikipedia).