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# Smart Classroom Program: Perceptions of SDIT Ash-Shiddiiqi Teachers

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ABSTRACT: Smart classroom-based learning is an alternative that can be used by educational institutions to prepare students to face the challenges of modern progress. This research aims to determine teachers' perceptions of the implementation of the smart classroom program at SDIT Ash-Shiddiiqi Jambi. The approach used in research is qualitative with case study techniques. Data was collected through semi-structured interview techniques involving five teachers as respondents who taught in the smart classroom program. Data analysis was carried out using qualitative descriptive techniques. Based on the data and discussion, it can be concluded that: 1) in general teachers have a positive perception regarding learning planning for the smart classroom program, however, it requires longer time and teamwork and each teacher has a different way or strategy in implementing the program; 2) related to the implementation of learning, in general the teachers involved in implementing the smart classroom program at SDIT Ash-Shiddiiqi have tried optimally, although several technical obstacles are still encountered, for example power outages, unstable internet networks and so on in general they are still can be handled and does not have too much impact on the existing learning process; 3) teacher perceptions regarding the assessment of learning outcomes, it is known that in general, teachers are able to carry out assessment of learning outcomes well, several teachers stated that the implementation of the smart classroom program at SDIT Ash-Shiddiiqi actually helped make it easier for them to carry out their learning and assessment.

KEYWORDS-Teacher perception, smart classroom, SDIT Ash-Shiddiiqi

### I. INTRODUCTION

The introduction of the paper should explain the nature of the problem, previous work, purpose, and the contribution of the paper. The contents of each section may be provided to understand easily about the paper

World development has now entered the era of the fourth world industrial revolution where technology has become the basis of human life. Information technology which is increasingly rapid in the current era of globalization cannot be avoided, including in the field of education (Agustian & Salsabila, 2021). Technological developments apply universally in all areas of life, including basic education (Urip and Riwanto, 2020). This is in line with the explanation of Dewi et al. (2021), Nafi'ah Setiani & Barokah, (2021), (Landa et al., 2021) that to keep up with developments in the digital technology era requires digital literacy skills. Aqil Siroj et al., (2022) said that the better the students' digital literacy, the better the students' interest in reading.

In order to adapt to developments in technology and digital literacy, education (schools) in the current era must be able to combine technology and the learning process. The learning process must seriously involve technology, both in terms of planning, implementing and assessing learning. In addition, technology must be an inseparable part of the process for the purposes of learning effectiveness and productivity. One real effort in adapting and involving technology in learning is the implementation of the smart Calassroom program. It is

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hoped that the use of Smart Classroom technology will be able to answer today's learning needs. So, learning activities can be carried out anywhere and anytime and learning materials can be accessed easily through various channels and content.

Theoretically, a smart classroom refers to the ability of an individual or group of people to be able to take advantage of technological developments to make work easier (Lathifatuddini et al., 2021). Smart classrooms help this knowledge transfer using technological advances in the fields of signal processing, web technology, hardware and software (Saini & Goel, 2019) in line with Wu Di's opinion (Di et al., 2019). Smart classroom design principles aim to bridge the gap between students and instructors, help instructors teach more efficiently, and create an environment more conducive to the teaching and learning process.

Smart classroom-based learning is an alternative that can be used by educational institutions to prepare students to face the challenges of modern progress (Gunarto, 2023). In implementing smart classroom-based learning, of course there are many challenges that must be faced. Challenges faced by teachers in learning include the lack of access to learning resources, differences in students' learning needs, and inappropriate time management in implementing teaching and learning activities.

The adoption of technology in learning will certainly help teachers and students to achieve learning goals, but on the other hand there are negative impacts that accompany it. (Rahman, Ali: 2016). These impacts include, children becoming addicted to gadgets, individualism, decreased interest in learning, mental and behavioral changes, emotional imbalance, hallucinations, and even serious mental disorders.

Efforts that can be made by teachers to anticipate the challenges of adopting this technology need to be managed and controlled. It is hoped that smart classroom learning can help anticipate the negative impacts of using technology in learning, in addition to ensuring that teaching and learning activities can optimally achieve the expected learning objectives. Meanwhile, current developments in science and technology encourage teachers to be able to adapt to current developments in learning activities. Teaching and learning activities in a smart classroom environment integrate learning with the use of technology. For this reason, teachers are required to have sufficient innovation and competence to be able to take advantage of current developments in preparing students to face the challenges of the times.

The successful use of the knowledge and technology model in the Smart Classroom cannot be separated from the role of the teacher, referring to the definition of a teacher according to Republic of Indonesia Law Number 14 of 2005 article 1. Teachers are professional educators with the task of educating, teaching, guiding, directing, training, assess and evaluate students in early childhood education through formal education, primary education and secondary education. Sutrisnayanti et al. (2021) explains that professional teachers are those who are able to teach students effectively in accordance with constraints, resources and the environment with public recognition of teacher status as a professional position, so that teachers are required to improve the quality of educational competence and a high professional attitude. Thus, the presence of professional and high-performance teachers in the context of implementing the smart classroom program is very much needed.

One of the main factors that determines the level of teacher professionalism and performance is perception. According to Fuady et al. (2017) that perception is an experience about objects, events, or relationships obtained by inferring information and interpreting messages. Apart from that, perception can also be understood as something that shows the activity of feeling, interpreting and understanding objects, both physical and social. Meanwhile (Sumarandak et al., 2021) explains that perception is part of the life process in which every person makes an assessment of what they see and then carries out thinking activities to decide what to do. Humans are individuals who can adapt so that perceptions of the environment will influence the relationship between individuals and their environment. According to Desmita (2015), teacher perception is a process in which individuals organize and interpret stimulus patterns in their environment. Thus, perception is an experience about an event obtained by deducing information and interpreting messages. Perception is giving

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meaning to our senses. Thus it can be understood that perception is related to a person's perspective, psychology and ability to adapt to their environment.

Empirically, in the field of education, perception has its own influence on the professionalism and performance of teachers and students. This is in line with research by Nurrahmi et al. (2021) that perception influences decision-making ability. Meanwhile, research by Yurindera (2020) shows that perception influences a person's attitude and motivation in carrying out an action. Research results (Hakim et al., 2021) state that perception is closely related to decision making, self-concept and values. Thus it can be said that teachers with a positive perception of education and everything related to it are seen as more professional than teachers who have a negative perception. Therefore, knowing someone's perception of something also means knowing their perspective, attitude and decisions towards that something. Teachers' perceptions of the smart classroom program can also be seen as something that is very important in predicting the success of the program.

SDIT Ash-Shiddiiqi, in this case, is the first school in Jambi to integrate technology into learning, where students and teachers in class use iPads in their learning activities. SDIT Ash-Shiddiiqi is an integrated Islamic elementary school in the city of Jambi which was founded in 2007 with the vision of producing prospective leaders who are intelligent, pious, creative and have mature personalities as well as becoming a quality and best educational institution. Thus, the main question in this research is what is the teacher's perception of the implementation of Smart Classroom at SDIT Ash-Shiddiiqi?

#### Research purposes

Referring to the description above, this research focuses on teachers' perceptions regarding the implementation of the smart classroom at SDIT Ash-Shiddiiqi. Therefore, this research aims to determine the perceptions of SDIT Ash-Shiddiiqi teachers regarding planning, implementation and assessment of learning outcomes in the smart classroom program at SDIT Ash-Shiddiiqi.

#### **Problem statement**

In this research, the problem formulation is stated and arranged systematically and sequentially. The problem formulation is structured in such a way that the respondents' explanations and answers are also arranged systematically. Some of the main questions in this research are as follows:

- 1. How do teachers plan smart classroom learning at SDIT Ash-Shiddiiqi?
- 2. How is smart classroom learning implemented at SDIT Ash-Shiddiiqi?
- 3. How do teachers carry out assessments in smart classroom learning at SDIT Ash-Shiddiiqi?

#### II. RESEARCH METHOD

As previously mentioned, this research focuses on looking at teachers' perceptions of the implementation of the Smart Classroom program at SDIT Ash-Shiddiiqi. Therefore, the approach used in this research is qualitative. Specifically, this research was conducted with a case study design. The case study design was chosen with the consideration that it is more appropriate and accurate for identifying various problems and determining patterns of relationships between events and phenomena. Sugiyono (2015) states that the qualitative method is a method used to describe or analyze natural conditions that does not emphasize generalization but places more emphasis on meaning.

This research was carried out at SDIT Ash-Shiddiqi, Jambi City, involving 5 Smart Classroom teachers. Data was collected using semi-structured interview techniques. The main reason for using semi-structured interview techniques is to facilitate the process of coding, analyzing and triangulating data accurately. Apart from that, semi-structured interviews also allow obtaining data quickly and systematically (Mashuri et al., 2022; Elhami & Khoshnevisan, 2022; Naz et al., 2022). Efforts to ensure the quality of the instrument (validity and reliability) were carried out by directing all questions prepared by researchers to educational measurement experts from Jambi University. Next, the instrument (interview guide questions) was prepared systematically

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and sequentially according to the problem formulation and research objectives by considering input from experts and teachers during pre-research and then used to collect research data.

After the list of questions in the interview guide is arranged neatly and systematically, the data collection process is then carried out. For reasons of data accuracy, apart from the interview results being recorded manually by the researcher, the interview process was also recorded via Android (audio data) after obtaining permission from the respondents. The interview process for respondents varies between 15-25 minutes depending on the development of the interview process. The interview process was carried out in the children's creation room. During the interview, the atmosphere in the room was ensured to be calm and safe from all forms of disturbance.

This research data analysis uses descriptive analysis techniques recommended by experts (Sugiono, 2015; Moleong, 2012). The main aim of using descriptive analysis techniques is that they are easier to use when dealing with multiple realities, presenting data directly on the nature of the relationship between respondents and researchers. , more sensitive and more attuned to the sharpening of collective influence on the value patterns faced (Moleong, 2012). To avoid research bias and fulfill the requirements of scientific ethics, this research did not include data or personal information of all respondents. All respondents' personal data or information is kept privately by researchers and is not published to the public. To simplify the data analysis process, each respondent is given a special code, namely T 1 (for the first teacher) and T2 (second teacher) and so on.

#### III. RESEARCH RESULTS AND DISCUSSION

Based on the research objectives, it is stated that this research aims to add data and information as well as qualitative literature to reduce existing literature gaps. This research also aims to understand and describe the influence of teacher perceptions on the implementation of the smart classroom program at SDIT Ash-Shiddiiqi. To achieve this goal, several questions were prepared for the interview. Some of these questions are as follows:

## Question 1: How do teachers prepare for learning?

The first question in this research focused on teachers' perceptions of learning planning in the Smart Classroom program. Therefore, the specific interview questions revolve around the teacher's strategy in making learning plans. Some quotes from the interviews are as shown in table 1 below:

Table 1 Quotes from Interview Results

Coding	Teacher's Answer
T 1	I know that planning in a smart classroom program is difficult. Therefore, I seriously learned to plan. I followed the experts' directions, step by step. Even though I encountered various obstacles, I was able to resolve them well.
T 2	Actually, I don't think it's difficult to plan. However, in my opinion, our time management must be managed well, and we need to work together with colleagues.
Т 3	In my opinion, because this program is new, I still need lots of references and help from colleagues to be able to complete it.
T 4	I can make learning plans, because it is not much different from conventional classes, we just need to add integration with technology.
T5	I make lesson plans between teaching hours, during free time and also often make them at home. Because if it is done at school, it is often hampered and intersected with correcting children's assignments.

Questions regarding teacher perceptions of smart classroom program learning planning. In general, teachers have a positive perception. However, it requires more time and teamwork. Apart from that, in general it can also be said that in general teachers are able to overcome various difficulties that arise during the learning

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planning process for the smart classroom program. Each teacher has a different way or strategy in implementing the program. This indicates that the teacher has good enthusiasm or motivation in planning the smart classroom program.

#### Question 2: How is the smart classroom program implemented at SDIT Ash-Shiddiiqi?

Furthermore, to find out perceptions of the implementation of the smart classroom program, the teachers involved in the program were asked several questions related to the implementation of the smart classroom program at SDIT Ash-Shiddiiqi. Some quotes that are relevant to this question are as follows:

Table 2 Quotes from interview results regarding the second research question.

Coding	Teacher's Answer
T 1	I have tried to carry out the program professionally. I still often encounter several technical problems, for example power outages, so that digital equipment cannot be used properly. Apart from that, there are problems related to the internet network, which is less stable.
T 2	Actually, I don't think it's difficult to implement a smart classroom program, but because this is a new program, I still need adaptation, both technically and empirically. Therefore, I think we need to collaborate with colleagues better.
Т 3	In my opinion, because this program is new, I still need lots of references and help from colleagues to be able to complete it.
T 4	I can carry out learning in the smart classroom program well. For me, the implementation of this program is not much different from conventional classes, but is implemented in an integrated manner with technology.
T5	For me, learning in the smart classroom program is very fun, there are lots of media and digital teaching materials that can be used. Apart from achieving curriculum objectives, it is also to broaden my knowledge as a class teacher.

Based on Table 2 above, it is known that in general the teachers involved in implementing the smart classroom program at SDIT Ash-Shiddiiqi have tried optimally. Although several technical problems are still encountered, for example power outages, unstable internet networks and so on, in general they can still be overcome and do not have much of an impact on the existing learning process. However, there are still teachers who need more time to adapt to the implementation of the smart classroom program at SDIT Ash-Shiddiiqi. However, from a perception point of view, these teachers believe that they are able to carry out the smart classroom program learning at SDIT Ash-Shiddiiqi better.

# Question 3: How are student learning outcomes assessed during the implementation of the smart classroom program at SDIT Ash-Shiddiiqi?

Furthermore, to find out what teachers' perceptions are in assessing student learning outcomes in the smart classroom program at SDIT Ash-Shiddiiqi, a more in-depth interview was conducted. The questions asked in the interview were related to the assessment carried out by teachers on students, especially in terms of achieving curriculum goals or mastery of material/content. Below are several excerpts from teachers' answers that are relevant to the third question.

Table 3 Quotes from interview results regarding research question three.

Coding	Teacher's Answer
T 1	I carry out assessments of student learning outcomes during the classroom program in accordance with the leadership's directions, namely using a digital platform. In this case I used quizizz and kahoot.

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T 2	In my opinion, it is not difficult to implement a smart classroom program, including in terms of assessment. In carrying out assessments, I still need adaptation, both technically and empirically, because this is a relatively new program at my school.
T 3	In my opinion, because this program is new, I still need a lot of references and help from colleagues to be able to complete it, including in terms of assessment
T 4	I can carry out learning assessments in the smart classroom program well. For me, the implementation of assessments in this program is not much different from conventional classes, but is carried out in an integrated manner with technology. So in my assessment I used digital platforms, namely Kahoots and Quizzizz.
T5	For me, assessing learning outcomes in the smart classroom program is very fun, it's actually easier. By using quizizz, students' ability assessments of a subject can be carried out and analyzed simultaneously.

Referring to Table 3, it can be seen that in general, teachers are able to carry out good learning outcomes assessments. Several teachers stated that the implementation of the smart classroom program at SDIT Ash-Shiddiiqi actually helped make it easier for them to carry out their learning and assessments. Some teachers use digital platforms, namely Kahoot and Quizizz. However, there are still some teachers who need time to master the digital smart classroom platform, including in terms of assessment.

#### Discussion

The research data as described above shows that in general teachers have a positive perception of the smart-classroom program implemented at the As-Sidiiqi Integrated Islamic Elementary School. This positive perception can be seen in the high interest or desire of teachers to participate and contribute optimally to the success of the program. Although some teachers stated that they experienced difficulties in planning, implementing and assessing the learning outcomes of students who took part in the smart-classroom program, in general teachers were not discouraged from increasing their knowledge to make the program a success.

Referring to the research results of Ilham et al., (2018) that there is a positive and significant influence between perceptions of teacher performance. This means that teachers' positive perceptions of the smart classroom program have encouraged work motivation and teacher performance. The teacher's work motivation comes from himself or what is known as intrinsic motivation, this is based on the teacher's strong desire to contribute to the successful implementation of the program. According to Kaspullah et al., (2020) the characteristics of intrinsic motivation can be seen from the following indicators: 1). the urge to be curious and want to investigate the wider world; 2). the positive and creative nature that exists in humans and the desire to progress; 3). the desire to achieve achievements so that they get support from important people, for example parents, siblings, teachers, or friends, and so on; 4. there is a need to master knowledge or knowledge that is useful for himself, etc. Therefore, referring to the results of this research, it can be predicted that the implementation of the smart classroom program at the As-Sidiiqi Integrated Islamic Elementary School has the potential to experience rapid progress.

Regarding the fact that there are still some teachers who experience difficulties in planning, implementing and assessing the implementation of the smart classroom program at the As-Sidiiqi Integrated Islamic Elementary School, school leaders must take appropriate steps. These steps are intended to increase teachers' scientific capacity to support the program. According to several experts, there are several activities that can be carried out in order to increase teachers' scientific capacity, including workshops. This is in line with the research results of Kuswahyuningsih (2023) that there is a significant influence between workshop activities on teacher performance, the higher and better the workshops and teaching plans provided, the higher the teacher performance. Thus, leaders of educational institutions and the Foundation need to organize a workshop activity for special teachers in terms of increasing the capacity to implement the smart classroom program at the As-Siddiiiqi Integrated Islamic Elementary School.

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Apart from workshop activities, other activities that can improve teacher performance in carrying out their duties are supervision activities. The urgency of supervision for teachers, as recommended by Manueke et al. (2021) that for school principals to increase supervision competence to provide supervision services in the context of improving teaching and professional development of teachers. These supervision activities are intended to improve teacher performance which has an impact on improving student learning outcomes and the achievement of school programs. Thus, through systematic supervision activities it is believed to be able to improve teacher performance while reducing various existing obstacles, both in terms of planning, implementing and assessing learning outcomes in implementing the smart classroom program at the Terpadi As-Siddiiqi Islamic Elementary School, Jambi.

At the end of this research, several weaknesses of this research were presented, including that the respondents involved in the research were five teachers. Even though this number is sufficient in research, considering that the implementation of the new smart classroom program involves two classes and the total number of teachers involved is 5 people, broader involvement of respondents can change the perception of teachers in the school in general. Changes in teachers' perceptions in general are needed so that in the future, planning, implementation and evaluation of smart classroom programs can be carried out more systematically. Apart from that, research involving a wider range of teachers is also to obtain information on teachers' supporting capacity for the implementation of smart-school programs in the future.

Referring to the data and discussion above, there are several recommendations that need to be carried out in the future, namely: 1) further research is needed and involves a wider range of respondents to obtain deeper information regarding the implementation of smart classrooms towards the smart school program; 2) there is a need for systematic research regarding various activities that enable increased teacher readiness, motivation and performance to support the success of the smart classroom program towards a smart school program. Apart from that, school leaders and foundation leaders need to develop various supporting programs to facilitate improvements in teacher quality, both technical and theoretical.

#### IV. CONCLUSION

Based on the data and analysis that has been carried out, at the end of the research several things can be concluded as follows:

- 1. In general, teachers have a positive perception regarding learning planning for the smart classroom program. However, it requires more time and teamwork. Apart from that, in general it can also be said that in general teachers are able to overcome various difficulties that arise during the learning planning process for the smart classroom program. Each teacher has a different way or strategy in implementing the program. This indicates that the teacher has good enthusiasm or motivation in planning the smart classroom program.
- 2. Regarding the implementation of learning, in general the teachers involved in implementing the smart classroom program at SDIT Ash-Shiddiiqi have tried optimally. Although several technical problems are still encountered, for example power outages, unstable internet networks and so on, in general they can still be overcome and do not have much of an impact on the existing learning process. However, there are still teachers who need more time to adapt to the implementation of the smart classroom program at SDIT Ash-Shiddiiqi. However, from a perception point of view, these teachers believe that they are able to carry out the smart classroom program learning at SDIT Ash-Shiddiiqi better.
- 3. Teachers' perceptions regarding the assessment of learning outcomes can be concluded that in general, teachers are able to carry out assessment of learning outcomes well. Several teachers stated that the implementation of the smart classroom program at SDIT Ash-Shiddiiqi actually helped make it easier for them to carry out their learning and assessments. Some teachers use digital platforms, namely Kahoot and Quizizz. However, there are still some teachers who need time to master the digital smart classroom platform, including in terms of assessment.

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