

USING SMART BOARD TECHNOLOGY IN THE LEARNING PROCESS

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Abstract

Have you ever thought that education will be more advanced if it collaborates well with technology? Yes, of course we all think in such a way, since ancient times technology has developed rapidly to assist learning activities, an online application and various applications to help teachers have been published when the technological development revolution is taking place, sophisticated educational support tools have also been made. In Law No. 20 of 2003 concerning the National Education System clearly states that the development of technology for education is a consciously planned effort to create an atmosphere of learning and the learning process so that students actively develop their potential. Realizing this, according to PT. EP-TEC Solutions Indonesia as the exclusive distributor for SMART Board products offers solutions to answer the challenges facing the world of education, especially in Indonesia. The solution is the SMART Board, an interactive whiteboard made by SMART Technologies from Canada with new advanced technology as the main medium for presentation and learning.

Key words: Education, Internet of Thing, Learning Process, Smart board

INTRODUCTION

The world of technology will develop very well when the quality of these tools can bring benefits to various fields, including the education sector (Ahluwalia, 2020; Megawaty, 2015; Utami et al., 2021). We want all students in Indonesia to be exposed to technological advances (Fithratullah, 2019; Ismatullah & Adrian, 2021; Suaidah, 2021). We dream that students in rural areas can experience the same education that students from big cities receive (Adiyanto & Febrianto, 2020; Mandasari & Wahyudin, 2019; Sulistiani et al., 2020). The SMART Board itself is a brand that is widely recognized by the international community. In Indonesia, many people are familiar with the word SMART Board, especially in the education sector (Ardyanto & Pamungkas, 2018; Ramdan & Utami, 2020; Teofilus & Trisya, 2016). The SMART Board is very easy to use, with just a touch of your hand you can control all the applications on your computer (Imani & Ghassemian, 2019; Wajiran et al., 2020; Yanasta Perdana & Rahman, 2015). Simply connect a USB cable to the computer and a VGA / HDMI cable to the projector to display the computer image right on the SMART Board, and the smart board is ready to go (Febrian & Fadly, 2021; Mastra & Dharmawan, 2018; Megawaty et al., 2021).

Unlike the projector, if the LCD projector relies on a regular blackboard with a laptop so that the material is displayed on the regular blackboard, the sophistication of this SMART Board has been tested technologically, it can be described as a large laptop that can accommodate a lot of teaching materials and sophisticated applications to increase enthusiasm study (Bakri & Darwis, 2021; Bakri & Irmayana, 2017; Dita et al., 2021). The 4000 and 6000 series SMART Boards are equipped with the latest technologies (A. Fitri et al., 2017; Rahman Isnain et al., 2021; Wantoro et al., 2021). SilkTouch, the most accurate and responsive touch screen technology ever (Amarudin & Atri, 2018; Pratiwi et al., 2020; Styawati et al., 2020). This technology makes our finger touch smoother so as to minimize touch errors (Anshari et al., 2021; Arniza Fitri et al., 2021a; Lestari et al., 2018). SMART Ink, allows users to write on any application that is on the computer. PenIQ which allows the use of two different colors at the same time without the need to change the order on the SMART Board (Kuswoyo et al., 2020; Rahman et al., 2021; Rittenberry, 2005). Object Awareness, this technology allows users to write with a stylus pen, touch with fingers and erase using palms without having to press any buttons. For SMART Board version 6000, Ultra HD Resolution image resolution of 3840 x 2160 pixels (4K) is supported. While the 4000 version is supported with Full HD image resolution of 1920 x 1080 pixels (Alfiah & Damayanti, 2020; Budioko, 2016; Mardinata & Khair, 2017). We don't want to increase their burden, but we want to lighten it. We offer a technology that users don't need much time to use (Abidin, 2021; Anisa Martadala et al., 2021; Satria & Haryadi, 2018). The launch of the Smart Board 4000 & 6000 Series at Belleza Permata Hijau, South Jakarta on Tuesday, May 5 2015 (Hermanto et al., 2021; Purba et al., 2019; Tinambunan & Sintaro, 2021).

LITERATURE REVIEW

A projector with a desktop computer projecting objects visually to the surface of the screen board (LCD), where user can control computer with using a pen, finger, stylus, or device other. SMART Board have gone wrong one of the most visible signs of technology digital in education over the last decade (Arniza Fitri et al., 2021b; Mandasari, 2020; Riskiono et al., 2020). Like a lot of technology others adapted for education in a hundred years Lastly, they have often advanced as usher in a pedagogical 'transformation' or 'revolution' (Barades et al., 2013; Nabila et al., 2021; Setiawan et al., 2021).Indeed, continuous research is still needed to see if it will proven. Researchers need to be encouraged to keep researching the

"effectiveness" of each technology updated, while continuing to conduct research for explain which technology applications are capable of facilitate learning, in what ways, where the context, for whom, and why (Lina & Permatasari, 2020; Sari et al., 2018).

If computers are considered as a technology that has revolutionized student learning, the technology that has revolutionized teacher teaching is the SMART Board. Is it true that the SMART Board will bring about a big change in the way teachers teach in the classroom? As a tool for linking teaching to learning in the digital age, interactive whiteboards appear to be the missing link. The SMART Board is the link between teacher and student activities in the classroom.

This is possible because the SMART Board provides the opportunity for teachers to interact with students directly by dividing the SMART Board screen and inviting students to be interactive directly on the screen. Multi-touch screen and can be used together with up to three people, using fingers, stylus and even with wiimote. How about the development of SMART Borad from the other side, namely in terms of growing users?

Data from the UK shows that only 5 percent of teachers nationally used Borad's SMART in 2002, but in 2007 that figure was the SMART Board Dual Multi Touch incorporating digital technology for interactive functions. The SMART Board-Dual Multi Touch is the SMART Borad which can identify the location of each contact on the whiteboard surface and capture live writing or images. Attach iTBoard Touch to PC / laptop via standard USB port with just plug-n-play, and make your presentations interactive and increase the efficiency of presentations and seminars soaring to 64 percent.

METHOD

To support this research in real terms, research uses a questionnaire to help real surveys around us, namely by using the participation of friends to fill out the questionnaire and collect it to be used as supporting data for this research. I am not only using the participation of classmates but also outside of my class to develop this research through a wide survey of other people, to find out suitable survey results and research on the effectiveness of using the SMART Board and also the benefits of the SMART Board in teaching and world of education. I used experimental methods to collect data through a questionnaire. From the questions given by me, my friends would choose the answers according to what they wanted because I knew that without even trying SMART Board, they would know which one is the best for education and teaching will be more effective.

RESULTS AND DISCUSSION

This section will elaborate the result of this research related to the online learning. The data was collected from students of Teknorat University including male and female. The interview was implemented through google form by using VAK and perception questionnaire. The question consists of six questions and statements. And bellows are the table of the results.

NO	QUESTIONS	Frequency (N=25)	Percentage
1	In your opinion, is the online learning the best way to do the learning process during the pandemi?	23 (yes) 2 (no)	92% (yes) 8% (no)
2	During this pandemic, do you prefer online learning or offline learning?	9 (offline) 3 (online) 13 (both)	36% (offline) 12% (online) 52% (both)
3	The online learning makes me more understand the material	17 (disagree) 7 (strongly disagree) 1 (agree)	68% (disagree) 28% (strongly disagree) 4% (agree)
4	If I don't understand the material, I will find the other resources untill I understand	20(agree) 2 (disagree) 3 (strongly disagree)	80% (agree) 8% (disagree) 12% (strongly disagree)
5	The online learning makes me difficult to manage the time to do the	11 (agree) 6 (strongly agree)	44% (agree) 24% (strongly agree)

	assignments	5 (disagree) 3 (strongly disagree)	20% (disagree) 12% (strongly disagree)
6	If there is no pandemic, I still prefer the online learning	5 (agree) 11 (disagree) 9 (strongly disagree)	20% (agree) 44% (disagree) 36% (strongly disagree)

Based on the data above, it can be seen that 92% agree that the online learning is the best way to do the learning process during pandemic. Because it can help us to prevent the infection of covid 19 virus. And during this pandemic, most of students prefer to both online learning and offline learning in amount of 52%. In the amount of 68% disagree that online learning make them more understand the material, it means that in online learning they get more difficult to understand the material than in offline learning. If they don't understand the material, they will find other resources until they understand and most of students in the amount of 80% agree with that. When the students do the assignment of online learning, they get difficult to manage their time to do that, this thing has already known from the data with 44% agree and 24% strongly agree. Most of the students disagree that there is no pandemic, they still prefer the online learning, from the data above the reason is because they're difficult to understand the material and difficult to manage their time to do the assignment given by their lecturers through online learning.

Majority of the higher education students have reservations about online learning. Lack of access to internet, lack of interaction with their lecturer and other students were the challenges that faced by higher education students. The changing from face-to-face (offline) learning to online learning has made different learning experience for students. Most of students don't have good connection with their internet especially the students who live in a village. So they're difficult with online learning. Most of the students also said that the offline learning more effective than offline learning. Thus it can concluded that online learning cannot produce effective results.

One of the less discussed of online learning is the necessary of motivation for online learning. In offline learning, the students are usually active in learning activities due to their face-to-face with their lecturers and their class fellows. Because of this problem, the students should be given the motivations more related to the online learning. To ensure that the online learning program become effective, the students must have good technological skills to learn from online learning so the students can manage their time to study effectively. But it will be difficult for students who lack of skill in technology and have bad connection with their internet access.

The various kind of teaching tool media used in Teknokrat University during the online learning process such in the web namely spada, via zoom, via google meet, and etc. From the web spada, the students and lecturers can access their online learning with the teacher provide the materials like slide, pdf, video and also provide the post test as the assignment for students. The students and the lecturers also make their online learning through zoom applications or google meet when they need to do the presentations or teacher explain their materials. Beside they use the website and zoom applications to do their online learning, they also make WhatsApp group for the interaction between lecturers and students. So they can still interact each other without face-to-face.

CONCLUSION

Covid-19 impacted the learning process in education around the world. The learning activities which is usually done in the classroom, now shift to online learning due to covid-19 pandemic. This thing, aims to prevent the infection of covid-19 virus. Although online learning is the best way to do the learning process during this pandemic, however, it is not as effective as conventional learning. Online learning can not produce effectively especially for those who live in a village that lack of access to the internet. Beside of that, most of students also get difficult to understand the material when do the online learning, so they should find another resources related to the material untill they understand. For the interaction between lecturer and students, they usually use zoom Application or google meet and they make WhatsApp group so they can interaction well.

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