



## DEVELOPING STUDENTS' DIGITAL AWARENESS AND RESILIENCE IN LEARNING PROCESS

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### Abstract

This paper reported the result of a seminar to develop students' awareness of the use of technology in their learning process. The seminar also discussed their challenges in the use of technology for learning and how they dealt with it. The seminar highlighted the importance of good digital literacy for students, especially how they should use it to support learning in appropriate ways. The seminar was carried out by having presentation and participants' questions-answers for discussion. It was indicated in the seminar that students felt technology made their learning easier, especially in terms of the access to resources. Nevertheless, the ease also became challenges as it gave them opportunity to perform cheating and distract them in learning.

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## 1. Introduction

The discussion on technology impacts to education has been a popular issue particularly its contribution to support teaching and learning. The development of technology is in line with the increase numbers in its users. People become more dependent on the use of technology as it makes their life easier (Alivi, 2022; Alivi, et.al., 2024; Gamlo, 2014). Likewise, in the educational context, students in 2023, as digital natives, technology has been part of their daily life, in which most of them are technology literate and have high competences in its use. This has encouraged teachers and educational policy developers, such as governments and institutional leaders, to involve the technology use in teaching.

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Nonetheless, the popularity of technology use in students' learning has also some challenges, leading to cheating practice such as plagiarism or academic honesty (Alivi, 2022; Cotton, et al., 2024; Yeo, 2023). The ease of access to online resources and massive innovation of AI (Artificial Intelligence) has given students with wider opportunities to misuse it in completing their assignments, for example, the use of ChatGPT (Cotton, et al., 2024; Adeshola and Adepoju, 2023) or Grammarly (Alivi, 2022).

Responding to this issue, guidance and educational counselling through educational seminars or workshops to students are necessary to improve their awareness on the technology use in learning. Hence, a seminar was conducted at Universitas Hasyim Asy'ari, Tebuireng, Jombang on 10 December 2023. The seminar was to give counselling and discussion for students of Islamic Education faculty related the importance of the technology use to support their learning. Particularly, the theme of this seminar was "Resilience in the Digital Era: Education in Islamic Boarding Schools and Its Challenge in Religious Moderation Literacy".

This paper is to report the result of the seminar purposing to give counselling to students on the use of technology in learning. This is particularly to develop students' awareness of their use of technology to support their learning. The seminar was targeted not only to students but also teachers, in which they have an important role in the success of the teaching and learning process. Some materials such as TPACK (Technology Pedagogical Content Knowledge) were highlighted to give them guidance on how technology should be used in teaching. Thus, this seminar was expected to provide practical contributions to teachers, students, and institutional leaders on technology development in education. Moreover, the result of this paper is also expected to give some insight or feedback for policy developers, particularly governments in Indonesia, in the development of educational curriculum.

## 2. Materials and Methods

The seminar carried out a presentation followed by discussions. The presentation lasted about 30 minutes covering some points: The Cone of Learning Theory (Dale, 1969), contribution of technology in teaching and learning, types of media in learning, and the importance of TPACK (Technology Pedagogical Content Knowledge) in teaching and learning (Misra and Koehler, 2008). In details, the presentation materials were described as follows:

- *The Cone of Learning Theory* was explained to highlight the importance of media and learning activities in the students' retention process. According to the theory, after two weeks of

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receiving materials or information, learners have tendency to remember the information 10% when they read, 20% when they hear, 30% when they see, 50% when they see and hear, 70% when they say, and 90% of what they say and do practically.

- *Types of media in learning* described three main types of media that can support students' learning process. This also explained how teachers should select appropriate teaching media adjusting to classrooms or students' conditions and needs.
- *The Importance of TPACK in teaching* was to explain that the students, as prospective teachers, should improve their teaching competence not only in content and pedagogical mastery, but also technology competence. It was encouraged for teachers and prospective teachers to apply the TPACK concept in teaching practice in response to the wider use in technology in digital era.

In the seminar presentation, Mentimeter was used to collect participants views on the importance of technology in teaching and learning process, types of technology they regularly use to support teaching and learning process, particularly for independent learning, and types of media make them easier to support learning.

The seminar participants consisted of students and lecturers in Islamic Education faculty, Universitas Hasyim Asy'ari, Jombang, Indonesia. The theme of the seminar was "Resilience in the Digital Era: Education in Islamic Boarding Schools and Its Challenge in Religious Moderation Literacy".



Figure 1. The presentation session (Left). The question-and-answer session (Right)

In the questions and answers session, there were three questions given by students. The questions include:

- Could you give us recommendations so when we use mobile phones, we are not distracted or addicted?
- The use of ChatGPT is now very popular and it is frequently use inappropriately. What should we do to face the challenge?
- How could we face the challenge of technology or AI in learning as it gives us potential to be lazy in learning due to the ease of use to access everything?

### 3. Results and Discussion

From the result of Mentimeter, there were three points to report consisting of their views on the importance of technology in teaching and learning, the types of technology they frequently use to support teaching and learning, and types of media make them easier to support learning

First, according to the survey on Mentimeter, 80% participants felt that technology contributed positively to their teaching and learning process, while the rest (20%0 said it did not have impact on their learning, i.e. with or without technology was the same for them.

For the second survey on the types of technology they liked to use to support learning, most of the participants mentioned Google, mobile phones, laptops, YouTube, and Gamma. The remaining technology they mentioned included TikTok, Canva, Zoom, Internet, Microsoft Office, games, Google Scholar, Mobile Legend, ChatGpt, Duolingo, Telegram, lcd, and Persplexity. The response is presented in Figure 2.



Figure 2. The Mentimeter result on technology types used to support teaching and learning

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The third survey question was about the type of media used by teachers they felt easier to understand the material. The options consisted of visual, audio-visual, and practice. Eight out of thirteen participants felt that they could comprehend the materials the easiest when the teachers gave them practice activities, followed by audio-visual (four respondents) and visual (one person). The detailed proportion is shown in Figure 3.

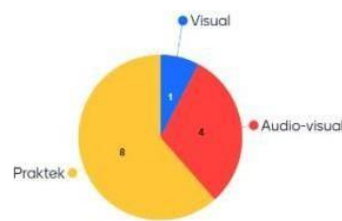


Figure 3. The Mentimeter result of the preference in the use of teaching media for better comprehension

Furthermore, in relation to students' questions, there were three questions asked by students, covering:

- Could you give us recommendations so when we use mobile phones, we are not distracted or addicted?
- The use of ChatGPT is now very popular and it is frequently used inappropriately. What should we do to face the challenge?
- How could we face the challenge of technology or AI in learning as it gives us potential to be lazy in learning due to the ease of use to access everything?

*First question: Could you give us recommendations so when we use mobile phones, we are not distracted or addicted?*

Responding to the first question, it is a common issue that students use mobile phones for various activities and to be part of their lifestyle. Students use their mobile phones mostly for social media and games. The use of social media and playing games are actually not bad activities, and students still could do learning while playing them. The students could follow some contents supporting their learning materials. So, when they play social media such as TikTok or Instagram, these contents may pop up on their social media page which they accidentally read them. Students still could learn foreign language such as English or Arabic from games if they set the language into the targeted language. This could help them improve some vocabulary from the game. *Second question: The use of ChatGPT is now very popular and it is frequently used inappropriately. What should we do to face the challenge?*

Responding to the second question, innovation in technology such as AI is basically to help users easier in life. The use of ChatGpt in teaching and learning is actually helpful to help learners summarise information from different sources into one page. ChatGpt could help users or learners to generate ideas if they are stuck about particular information. However, ChatGpt is widely misused by learners to help them answer questions of their assignments. This has particularly occurred widely on the essay assignments. As a solution, we should not blame technology or ChatGpt as a trigger for students to cheat. It should have been the teachers who should be creative to integrate ChatGpt in teaching but minimising its use for plagiarism or cheating. The teachers could design project-based assignments such as video creation or poster creation, instead of essay, if it is home assignments. Having these projects, students will find it more difficult to cheat on their academic assignments.

*Third question: How could we face the challenge of technology or AI in learning as it gives us potential to be lazy or less critical in learning due to the ease of use to access everything?*

For the third question, the response was similar to the answers for the first and second questions. To add, the ease of use and access of technology could positively or negatively influence the users, and it depends on the individual decision and control how they use it. It is true that technology may lead the users lazier as everything is now more practical thanks to technology. One alternative solution is by giving students external motivation from teachers' activities or assignments which could force them to learn using technology. If students are forced to use technology in learning and guided how to use it positively and appropriately, it could be a habit for them in the long run. Hence, teachers are encouraged to be creative in the application of TPACK in teaching and learning activities.

#### **4. Conclusion**

From the survey result on Mentimeter and the discussion in Q&A session, participants are aware of the importance of technology use in teaching and learning. They had used a variety of technology to support teaching and learning, in which they used Google the most. According to the participants' questions, they were also aware of the challenges of technology in learning. They felt that technology had made them lazier as innovation in technology provided them with easier and more practical access to find information, in which they felt less critical. In short, participants agreed that technology contributed positively to teaching and learning but they required an explicit force or encouragement for teachers to help them use technology wisely. a recommendation, teachers have a significant role in how students use technology in learning.

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As Therefore, teachers are encouraged to improve their TPACK skills and creativity to meet learning purposes. Moreover, support from government for teachers training and clear curriculum are required to make it more successful.

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