# Analysis of Student Knowledge of Open AI Technology at Pelayaran Nusantara Vocational School, Serang City

Novia Safitri·, Salsabila Khansa, Siti Ayu Ningtias, Ahmad Satibi, Yulda, Razan Hedta Gibran, Muhammad Thoriq Nurrohman

Marine and Fisheries Education, Indonesian University of Education Jl. Ciracas No. 38, Serang, Kec. Serang, Serang City, Banten 42116
·noviasaftr@upi.edu

**Abstract**

The development of technology has been transformed significantly in various sectors. One example is OpenAI which was created to facilitate human needs in various fields, including in the field of education. This study aims to analyze students at Pelayaran Nusantara Vocational School at Serang City on the lack of student knowledge of OpenAI technology at Pelayaran Nusantara Vocational School at Serang City which involves students to evaluate their level of knowledge about the concepts, applications, and potential use of OpenAI technology in learning. This method of research is qualitative through observation involving 17 students of SMK Pelayaran Nusantara Kota Serang and consists of 3 female students and 14 male students.The results showed that students of Pelayaran Nusantara Vocational School at Serang city are not familiar with the existence of Open AI due to several factors such as inadequate curriculum, limited resources, and lack of guidance for teachers to implement Open AI technology in learning.

**Keywords:** openAI, technology, vocational school.

## A. INTRODUCTION

The use of smartphones increases every year. This increase is due to the many functions of smartphone technology that greatly assist in fulfilling the needs of society, such as social media, entertainment, shopping, work, financial management, health, and education. This needs to be anticipated by creating more digital-based content to optimize the opportunities for improving the quality of education (A. Satibi, 2022). Technological developments have undergone significant transformations in various sectors. One example of technological development is OpenAI. OpenAI is an artificial intelligence research company (Artificial Intelligence) which has the goal of developing AI technology that is safe, useful, and reliable. Another goal of OpenAI is to develop AI that is open to the public so that it can be used by anyone without discrimination and can have greater benefits for society (Sam Altman, 2015). The World Intellectual Property Organization (WIPO) says Artificial Intelligence (AI) is a computer science discipline whose goal is to develop machines and systems to be able to perform tasks that require human intelligence (WIPO, 2019).

The use of OpenAI has increased in the last ten years and has affected many aspects of life, one of which is education. OpenAI has become one of the innovations in the world of education, with the aim of increasing the efficiency, accessibility and quality of learning. Learning media is important in the era of digital technology development because it is expected to provide solutions to overcoming learning challenges (N. Kinanti, dkk, 2022).

This OpenAI technology can be utilized to develop student competencies that are indispensable in the 21st century. Writing produced by OpenAI can be used to motivate students to improve their writing skills (Nisa, 2016). In addition, the use of OpenAI in learning can also help motivate students and increase their involvement in learning. In this way, students will also be more interested and motivated to study science at school, and thus gain the skills necessary to become experts in their fields.

Sailing Vocational High School is one of the educational institutions in Indonesia which has the responsibility to prepare students to become competent workers in the maritime sector (M. Djalaludin). Along with technological developments in the maritime industry, understanding AI technology is very important for Vocational Vocational High School students. However, currently it still shows that students' lack of knowledge of Open AI technology in education is a serious concern. Some of the factors that cause students' lack of knowledge of OpenAI technology include an inadequate curriculum, limited human and technological resources, and a lack of training for teachers to integrate OpenAI technology in learning.

The purpose of this study was to conduct an analysis of students' lack of knowledge of OpenAI technology at Pelayaran Nusantara Vocational School, Serang City, which involved students to evaluate their level of knowledge about concepts, applications, and the potential use of OpenAI technology in learning.

## B. METHODS

This study uses a qualitative approach through observation. This method is used to collect data by observing and recording behavior, actions, or interactions that occur directly in a real environment, such as in the classroom or in the school environment (Sugiyono, 2010). The advantage of qualitative methods is that they are able to capture the nuances or complexities of the social phenomena being studied and allow researchers to gain a deeper understanding of the context being studied. However, the weakness of this method is the subjectivity of observations and depending on the interpretation of the researcher. Observation activities were carried out on May 3 2023 which took place at the Vocational School of Nusantara Shipping in Serang City, precisely on Jl. Panancangan, Kec. Cipocok Jaya, City of Serang, Banten. Sources of data were obtained through interviews and documentation by researchers with cellphones as observation tools and students were involved as sources of information about conditions at the research location.

During discussion activities in class, the researcher made observations of groups of students. Many different participation patterns were found among students in the observations. Most of the students were active and involved in the discussion. They seem eager to share their opinions and engage in an exchange of ideas. However, some students prefer to remain passive and just listen but not make a significant contribution. It seems they prefer to see than talk. Observations also describe how students speak in discussion. Almost all students have difficulty explaining something so that other people can understand it. Often they stammer or can not organize their thoughts properly. Some students chose to remain silent and only nodded in response.

Although still limited, some students know about Open AI. In addition, all students have never used Open AI and do not know how to use it. Observations showed that some students seemed very interested in the topics discussed and were actively involved in the discussion. They solicit opinions, ask questions, and seek to participate actively.

Nonetheless, some students may lose focus and not be actively involved in the discussion. They may be disinterested or have difficulty understanding and following the discussion.

The results of this qualitative observation provide an overview of the way students communicate, their involvement in discussions, their knowledge of Open AI, and their participation patterns. With this information, you can create teaching strategies that better suit students' needs and increase their participation and understanding in learning.

## C. RESULT AND DISCUSSION

**Table 1**

| No. | Student Gender | Amount |
|---|---|---|
| 1. | Woman | 3 |
| 2. | Man | 14 |
| **Overall total** | | **17** |

The results of observations conducted on May 3 2023 at Pelayaran Nusantara Vocational School, Serang City by interviewing 17 grade 10 students consisting of 3 female students and 14 male students directly showed that most students did not have sufficient knowledge about Open AI. They are not familiar with the concepts and applications from Open AI. This can be caused by several factors, such as a lack of exposure or limited understanding of the technology. Lack of knowledge about Open AI can be a dilemma, given the importance of understanding technological developments in today's digital era. Open AI has great potential in various fields, such as artificial intelligence, natural language processing, and intelligent software development. with limited understanding, students may miss opportunities to make optimal use of this technology and prepare themselves for an increasingly digitally connected future. The discussion that needs to be done is to integrate Open AI material into the curriculum or learning at school. Teachers can provide clear explanations and provide software models from Open AI in everyday life. thus, students will have a better understanding of the potential and benefits of this technology.

**Figure 1.** Documentations

In addition, learning approaches that involve technology and interactive can also be used. for example, students can be invited to do simple experiments or projects that use Open AI. This will provide them with exclusive experience as well as strengthen their understanding of the concept, it is important for schools and educators to keep students updated with modern technological developments. Holding seminars, workshops or other activities that discuss topics related to Open AI can help enhance students' knowledge. In addition, utilizing online resources, such as learning videos or e-learning platforms, can also be a source of useful information to increase students' understanding of Open AI. With the right efforts to increase students' knowledge about Open AI, we can help them to be better prepared to face challenges and opportunities in the ever-evolving digital era. Increased knowledge of Open AI will also prepare them to face an increasingly technologically connected world of work.

AI technology has developed rapidly, including in the field of education. one of the AI technologies that is widely used by students in schools is Open AI. however, based on what will happen in the research conducted, most of the students at the Nusantara Shipping Vocational School in Serang City do not know, have never used, and do not know how to use Open AI. To help with assignments, students only rely on books, Google, and websites like brain.ly. In addition, students said that teachers always teach in the traditional way and there has been no development of teaching methods using the latest technology.

There are several other factors that cause students' lack of knowledge of Open AI technology, including:

a. Inadequate curriculum. With changes in the field of education, it is necessary to restore the curriculum by increasing student competence, including critical thinking, creativity and innovation, self-ability and communication, teamwork, collaboration and self-confidence (Yusnaini, 2019).
b. Limited resources. Limited resources can affect the technology used in educational environments (Dess & Beard, 1984).
c. Lack of guidance for teachers to implement Open AI technology in learning. The challenge for teachers in this digital revolution era is to prepare teacher readiness in access and mastery of technology, with low literacy among teachers who have access to information technology resulting in difficulties in the learning process (Wibawa, 2018)

If implemented in schools, the use of Open AI in education has positive consequences for students, including:

1. To facilitate student assignments in learning activities

Open AI makes it easier for students in learning activities by personalizing Teaching and Learning Activities for each student. AI systems can help create a learning profile for each student by adjusting to their individual needs. AI can also adapt learning materials to the abilities, ways of learning, and learning experiences of each student. This makes it easier for students to understand the material and can solve their learning problems effectively.

2. Unlimited data

Open AI can analyze more and deeper data. AI can work quickly and repeatedly according to programmed directions and in a short time can present solutions and problem solving that are faster than human capabilities.

3. Can be used anywhere and anytime

The use of Open AI allows students to study independently without space and time limitations. They can access learning materials from anywhere as long as they are connected to the internet network. Open AI also facilitates collaborative learning between students. They can communicate, work together, and share knowledge through this platform.

4. Do tasks faster and better.

Open AI can help with student work by providing access to a variety of relevant information sources. AI can also provide clues to students when experiencing difficulties in doing assignments. In addition, by using Open AI students can improve the quality of their writing.

However, it is undeniable that the use of Open AI among students can also have negative consequences for them, such as students becoming more lazy to think, looking for other sources to do assignments. Open AI only works in sync using what has been programmed, sometimes Open AI cannot understand the goals and news being made.

The implementation of AI technology in the education sector makes it easier for students to do various things, such as creating more active learning and facilitating students' assignments in learning activities. After learning about the existence of OpenAI technology, students at the Nusantara Vocational High School in Serang City are expected to be able to increase their potential in learning such as critical, creative and communicative thinking, develop good moral character and attitudes, and develop good literacy skills related to reading, writing, numeracy, science, digital, and culture (Batubara, 2020).

## D. CONCLUSION

Based on the description above, OpenAI has now become one of the innovations in the world of education, with the aim of increasing efficiency, accessibility and quality of learning. The use of OpenAI in learning can also help motivate students and increase their engagement in learning. In this way, students will also be more interested and motivated to study science at school, and thereby gain the skills necessary to become experts in their field. Along with technological developments in the maritime industry, understanding AI technology is very important for Vocational High School students.

However, currently it still shows that students' lack of knowledge of Open AI technology in education is a serious concern. Although still limited, some students know about Open AI. In addition, all students have never used Open AI and do not know how to use it. Observations showed that some students seemed very interested in the topics discussed and were actively involved in the discussion. Along with technological developments in the maritime industry, understanding AI technology is very important for Vocational High School students. However, currently it still shows that students' lack of knowledge of Open AI technology in education is a serious concern. The discussion that needs to be done is to integrate Open AI material into the curriculum or learning at school.

## REFERENCES

Alimuddin, A., Juntak, J. N. S., Jusnita, R. A. E., Murniawaty, I., & Wono, H. Y. (2023). Teknologi Dalam Pendidikan: Membantu Siswa Beradaptasi Dengan Revolusi Industri 4.0. Journal on Education, 5(4), 11777-11790.

Batubara, M. H. (2020). Penerapan Teknologi Artificial Intelligence dalam Proses Belajar Mengajar di Era Industri 4.0 dan Sociaty 5.0. Kampus Merdeka Seri 1: Menilik Kesiapan Teknologi Dalam Sistem Kampus, 53.

Kinanti, N., Zanatullaila, M., Utari, G., Satibi, A., & Rudi, M. (2022, December). Kelayakan Linktree Sebagai Media Pembelajaran Daring Pada Materi Cara Produksi Pangan Yang Baik (CPPB). In Indonesian Conference of Maritime (Vol. 1, No. 1, pp. 70-79).

Nastiti, F. E., & Ni'mal'Abdu, A. R. (2020). Kesiapan pendidikan Indonesia menghadapi era society 5.0. Jurnal Kajian Teknologi Pendidikan, 5(1), 61-66.

Pakpahan, R., & Fitriani, Y. (2020). Analisa pemanfaatan teknologi informasi dalam pembelajaran jarak jauh di tengah pandemi virus corona covid-19. JISAMAR (Journal of Information System, Applied, Management, Accounting and Research), 4(2), 30-36.

Ririh, K. R., Laili, N., Wicaksono, A., & Tsurayya, S. (2020). Studi Komparasi Dan Analisis Swot Pada Implementasi Kecerdasan Buatan (Artificial Intelligence) Di Indonesia. Jurnal Teknik Industri, 15(2), 122-133.

Satibi, A., Tarigan, D. J., Aprinaldo, A., Ikmaludin, A. B., Arifin, W. A., & Nugraha, H. D. Series of Digital Based Material as Innovation for Marine and Fisheries Education Learning Media. INVOTEC, 18(2), 126-137.

Somantri, G. R. (2005). Memahami metode kualitatif. Makara Human Behavior Studies in Asia, 9(2), 57-65.

Uno, H. B., & Umar, M. K. (2023). Mengelola kecerdasan dalam pembelajaran: sebuah konsep pembelajaran berbasis kecerdasan. Bumi Aksara.

Yaumi, M., & Damopolii, M. (2019). Model Integrasi Teknologi Informasi dan Komunikasi dalam Pembelajaran Jarak Jauh. Al-Musannif, 1(2), 138-150.

Yulda, Y., & Widiaty, I. (2021, March). Multimedia technology implementation to promote digital learning. In IOP Conference Series: Materials Science and Engineering (Vol. 1098, No. 2, p. 022117). IOP Publishing.

Zahara, S. L., Azkia, Z. U., & Chusni, M. M. (2023). Implementasi Teknologi Artificial Intelligence (AI) dalam Bidang Pendidikan. Jurnal Penelitian Sains dan Pendidikan (JPSP), 3(1), 15-20.