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TEACHERS' PERCEPTION OF THE USE OF CHATGPT APPLICATION AS ONE OF THE LEARNING SUPPORT MEDIA

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Abstract: *Technological developments have had an impact on everyday life. This also happens in the world of education. Technology in the world of education is a means to develop learning in the classroom. One of the emerging technologies is ChatGPT(Generative Pre-Trained Transformer). Technology with artificial intelligence can respond to human-like questions. With the inclusion of this technology, this study aims to determine teachers' attitudes and perceptions about ChatGPT in learning. This is done as a first step to determine the right strategy. The research was conducted using a questionnaire distributed to teachers with the criteria of teaching in secondary schools. Data analysis using SPSS to see the value of each variable. Based on the research, it was found that teachers already know about ChatGPT and accept this technology to help work. The teacher also shows a positive and enthusiastic attitude towards the use of ChatGPT in learning. They recognize its benefits in preparing and planning lessons, developing materials, and enhancing students' insights. Even though teachers find ChatGPT helpful, they still have concerns about their trustworthiness and their ability to implement it. So there is a need for socialization to students before using ChatGPT in learning, to prepare students and strengthen the teacher's role as a facilitator. It can be concluded that ChatGPT has great potential in supporting learning, but it needs socialization, initial understanding, and strengthening of the teacher's role in implementation.*
Keywords: *ChatGPT, Perception, Technology, Artificial intelligence.*

Abstrak: Perkembangan teknologi sudah berdampak pada kehidupan sehari – hari. Hal ini juga terjadi pada dunia pendidikan. Teknologi di dunia pendidikan menjadi sarana untuk mengembangkan pembelajaran di kelas. Salah satu teknologi saat ini yang muncul adalah mengenai ChatGPT (Generative Pre-Trained Transformer). Teknologi dengan kecerdasan buatan yang dapat memberikan respon pertanyaan menyerupai manusia. Dengan masuknya teknologi ini maka penelitian ini bertujuan untuk mengetahui sikap dan persepsi guru tentang ChatGPT dalam pembelajaran. Hal ini dilakukan sebagai langkah awal untuk menentukan strategi yang tepat. Penelitian dilakukan dengan menggunakan kuesioner yang disebarkan kepada guru dengan kriteria mengajar di sekolah menengah. Analisis data menggunakan SPSS untuk melihat nilai dari setiap variabel. Berdasarkan penelitian didapatkan bahwa guru sudah mengetahui tentang ChatGPT dan menerima teknologi tersebut untuk membantu pekerjaan. Guru juga menunjukkan sikap positif dan antusias terhadap penggunaan ChatGPT dalam pembelajaran. Mereka mengakui manfaatnya dalam mempersiapkan dan merencanakan pembelajaran, mengembangkan materi, dan meningkatkan wawasan siswa. Meskipun guru-guru merasa terbantu dengan ChatGPT, mereka masih memiliki kekhawatiran terkait kepercayaan dan kemampuan guru dalam mengimplementasikannya. Maka perlu adanya sosialisasi kepada siswa sebelum penggunaan ChatGPT dalam pembelajaran, untuk mempersiapkan siswa dan memperkuat peran guru sebagai fasilitator. Berdasarkan penelitian ChatGPT juga memiliki potensi dalam mendukung pembelajaran, tetapi perlu adanya sosialisasi, pemahaman awal, dan penguatan peran guru dalam mengimplementasikannya.
Kata-kata Kunci: ChatGPT, Persepsi, Teknologi, Kecerdasan Buatan.

INTRODUCTION

The development of the current era has brought about many changes, especially with the presence of technology. Technology has become an essential part of daily life, supported by the ongoing advancements in technology. Many researchers are competing to discover new breakthroughs to facilitate activities with the help of technology. This shows that the current technological development is continuous and unpredictable. It is undeniable that technology has entered the world of education. With technology entering the world of education, new learning media will also emerge. These media are intended to assist teachers in delivering their lessons. Educational media will change the direction of learning. Additionally, students have a variety of technologies at their disposal, providing convenience in the learning process. Students can easily access information on the internet, making it easier to find inspiration for their work or learning tasks. This results in a shift in the learning process for students, as evident in changes in the learning environment and atmosphere.

The traditional teaching methods using textbooks have evolved with the introduction of Internet of Things, Face-Paced, and Artificial Intelligence (Sudibyo, 2019). Education has undergone significant changes in line with current technological advancements. Technology has had a profound impact on various aspects of education, from teaching methods to accessibility and student-teacher interactions. This shift has transformed the education landscape as a whole, opening new opportunities and challenging traditional paradigms.

One of the major paradigm shifts in education is the move from teacher-centered teaching methods to a more student-centered approach. Technology provides students with unlimited access to educational resources, allowing them to take control of their own learning. With technology, students can seek additional learning materials, study topics in ways that suit them best, and collaborate with fellow students worldwide. Furthermore, technology has opened the door to distance learning or online education. In the past, students had to physically attend classes to receive formal education. However, with technological advancements, lessons can be accessed online through e-learning platforms, video conferencing, and various educational apps. This gives students the flexibility to learn at their convenience, without being bound by geographical limitations or rigid schedules. Technology has also changed the way assessments and feedback occur in education. Previously, feedback often required a long time and direct involvement from teachers. However, now, with technology, online tests, automated evaluations, and instant feedback can be provided to students. This gives students the opportunity to quickly improve their understanding and identify areas that need improvement.

Of course, this paradigm shift also presents new challenges. There is a need for investment in adequate technology infrastructure in schools and training for teachers to integrate technology into the learning process. It is important to remember that technology is just a tool, and its success depends on how it is used. Therefore, it is essential to continuously consider how technology can be used effectively to enhance learning.

With the rapid development of technology in recent years, especially during the COVID-19 pandemic, artificial intelligence has emerged as a technology capable of providing human-like responses to questions. This technology is known as ChatGPT (Generative Pre-Trained Transformer). ChatGPT is known for its exceptional intelligence and its ability to bring about significant changes. This is demonstrated by the way ChatGPT can provide very fast responses to questions, much like a conversation with a human. In its development, ChatGPT is considered a leader in the artificial intelligence technology market. According to UBS research, in the first week, ChatGPT managed to surpass 1 million users, exceeding the potential of Instagram. The increasing recognition of ChatGPT has drawn the attention of various fields, including education.

The way ChatGPT works, with its human-

like responses, raises concerns, one of which is the issue of undetectable plagiarism. This can impact the integrity that students should maintain as one of their most important characteristics (Lo, 2023). This happens because it becomes easy to obtain information, making it easier to copy. Additionally, students may become lazy because they believe they can find all the answers easily. The consequence is that students may develop a dependency on ChatGPT. The fear of technology dependency can limit students' thinking and creativity (Tlili, 2023). This is evident in how students may not fully understand the true meaning of learning. Students may still perceive learning as merely a requirement to achieve good academic grades and obtain a diploma, which is seen as a crucial requirement for future employment. In this context, grades and diplomas are considered the primary goals of learning, while personal development, concept comprehension, and knowledge application are neglected. This perspective needs to be developed so that students understand that learning is not just an effort to meet formal requirements but is also a vital means for self-development, deep understanding, and the development of skills to help them face daily life challenges and prepare for a better future (Hanafy, 2014).

Despite the concerns raised by ChatGPT, this technology still has potential that can be harnessed. One potential benefit is its ability to help students generate writing ideas more quickly. By developing responses provided by ChatGPT, students can stimulate their creativity and discover new ideas that may not have been considered previously. Of course, to ensure effectiveness, students need clear and comprehensive guidance when using ChatGPT. In the context of developing critical thinking, students need precise guidance regarding their writing topics or goals. They also need to understand the available resources and how to use them effectively (Bishop, 2023). The balance between ChatGPT assistance and students' abilities to develop their own thinking is crucial. As a result, students can enhance their creativity, clarity, and the authenticity of their writing while still benefiting from the advantages offered by this technology.

The ChatGPT phenomenon has the potential to change the existing learning system. This change involves the evolving role of teachers, from being the sole source of information to becoming learning assistants assisted by ChatGPT. In this context, ChatGPT can support teachers in delivering learning materials, answering students' questions, and providing more individualized feedback. With ChatGPT as a learning assistant in the classroom, teachers can have more time for direct interaction with students, providing guidance and facilitating group discussions. Teachers can also use ChatGPT as a tool to encourage students to develop critical and creative thinking skills (Zhai, 2022). This is evident in how students can formulate questions as a part of their critical thinking process, and then develop these questions more deeply with ChatGPT's responses. Therefore, the learning process remains continuous and uninterrupted. Hence, the role of the teacher is crucial in guiding students through this process. The interaction between teachers and students is essential to achieve discussion-based learning and eliminate the one-way approach. Strengthening the teacher's role will help students develop their thinking skills and become character-based learners (Sutarman, 2019).

Based on these ideas, it is essential to gain initial knowledge about the attitudes and perceptions of teachers regarding ChatGPT in education. This aims to identify the attitudes and perceptions of teachers and to explore their understanding and beliefs about ChatGPT. Furthermore, the research aims to explore the potential of ChatGPT in the classroom. This research is expected to assist institutions in developing strategies for the use of ChatGPT in their teaching methods. It represents an innovative form of learning collaboration among teachers, students, and technology. Additionally, appropriate policies need to be developed to ensure that the learning process runs smoothly and is accompanied by the development of students' characters. This research is also expected to make a significant contribution in understanding teachers' perceptions and attitudes toward the use of ChatGPT in the context of education, serving as a reference for the development of strategies.

RESEARCH METHODOLOGY

This research involved 60 teachers as samples, comprising 30 middle school (SMP) teachers and 30 high school (SMA) teachers. Sample selection was carried out considering several predetermined criteria. The respondents' criteria were teachers from various fields of study who teach at middle schools (SMP/SMA or equivalent). The selection of samples that included teachers from various fields of study aimed to obtain a broad perspective on teachers' perceptions and attitudes toward the use of ChatGPT in education. By involving teachers from various disciplines, this research can provide a more comprehensive insight into how this technology can be adopted in various educational contexts. Additionally, the selection of samples consisting of both middle school and high school teachers allows the research to depict the perspectives of teachers at two different education levels. This is important because teachers' responses and needs can vary depending on the education level they teach. With a sample size of 60 teachers, consisting of 30 middle school and 30 high school teachers, this research can provide a more representative overview of teachers' general perceptions and attitudes regarding the use of ChatGPT in education at the secondary school level.

Data collection was done through a survey method using a questionnaire created with the assistance of Google Forms. The questionnaire was structured based on the variables to be measured, which are teachers' attitudes and perceptions towards the use of ChatGPT in education. It was divided into four discussion aspects: Introduction to ChatGPT, Experience in using it, Opinion on its performance, and Potential usage. The questionnaire used closed-ended questions to measure understanding, attitudes, and specific perceptions. The questionnaire questions were in the form of closed-ended questions with a scale of 1 - 4 (strongly disagree - agree). Data analysis was performed using SPSS with Descriptive Statistics to see the average values in each indicator. To determine the differences in two variable groups, an Independent T-test was used. This method helps test significant differences between groups, providing further understanding of the differences in attitudes between the two groups.

RESULTS AND DISCUSSION

Results

The research was conducted with the aim of understanding teachers' perceptions and attitudes towards the use of ChatGPT in education. Based on the data analysis that has been conducted, information related to teachers' perceptions of the use of ChatGPT in education is divided into four aspects: First, teachers' perceptions of the introduction to ChatGPT, Second, teachers' perceptions of their experience in using ChatGPT, Third, teachers' perceptions of ChatGPT's performance, and Fourth, teachers' perceptions of its potential use in education. The research yielded data in the following table.

Table 1. Respondents' Understanding of ChatGPT

No	Criteria	*Mean*
1	Have heard of ChatGPT	3,63
2	Have a ChatGPT account	3,17
3	Use ChatGPT	3,20
4	Have used ChatGPT to seek information	3,20
5	Do not require training to use	2,76

Based on the data analysis obtained from the respondent questionnaire, in the first aspect, regarding teachers' perceptions of being familiar with ChatGPT, the results show that the indicator "have heard of ChatGPT" has an average index score of 3.63, indicating that teachers are aware of ChatGPT. The indicator "have a ChatGPT account" has an index score of 3.17, indicating that some teachers have ChatGPT accounts. The indicator "use ChatGPT" has a score of 3.20, indicating that some teachers have used ChatGPT. The indicator "use ChatGPT to seek information" also has a score of 3.20, suggesting that some teachers have used ChatGPT to find information. However, for the indicator "do not require special training to use it," the score is 2.76, indicating that some teachers still feel the need for specific training to use ChatGPT. These results indicate that some teachers are already familiar with and have used ChatGPT to find information in their work. However, some teachers still feel the need for special training to use ChatGPT.

Table 2. Respondents' Experience in Using ChatGPT

No	Criteria	*Mean*
1	Helping to plan lessons	2,95
2	Developing engaging teaching materials	3,12
3	Using ChatGPT in the classroom	2,20
4	Allowing students to access ChatGPT	2,61
5	Students enthusiastically using it	2,68
6	Assisting in role-playing activities	2,44
7	Assisting in discussions	2,56
8	Preparing project assignments	3,12
9	Enjoyable teaching experience	2,80
10	Expanding insights	3,32
11	Providing teaching challenges	3,32
12	Challenging for evaluation	3,17
13	Using it routinely in the classroom	2,68
14	Recommendation to colleagues	2,93
15	Studying ChatGPT more deeply for teaching	3,37

In the second aspect, concerning the experience of using ChatGPT, several findings were identified. Firstly, teachers feel that the use of ChatGPT can assist in lesson planning, with an average score of 2.95. Additionally, ChatGPT is perceived to support the development of teaching materials, with an average score of 3.12. However, when it comes to using ChatGPT in the classroom, teachers gave a slightly lower rating with an average score of 2.2. This indicates concerns and limitations in using ChatGPT directly with students in the classroom.

Regarding the student's experience, teachers feel that ChatGPT can boost student enthusiasm in learning, with an average score of 2.68. Furthermore, teachers also see that ChatGPT has the potential to assist in role-playing, facilitate discussions, and prepare projects, although with slightly lower ratings. In terms of teaching experiences, teachers believe that the use of ChatGPT can provide valuable experiences and enhance their insights, with an average score of 3.32. Teachers also acknowledge that using ChatGPT may pose certain challenges, with an average score of 3.32. On a personal level, teachers see that using ChatGPT can alter the evaluation of learning, with an average score of 3.17. However, they still have concerns related to the use of ChatGPT in the classroom, with an average score of 2.68. Nevertheless, teachers express a tendency to recommend ChatGPT to their peers and are willing to further their understanding of this technology, with relatively high average scores.

Table 3. Respondents' Views on ChatGPT Performance.

No	Criteria	*Mean*
1	Easy for students to use	3,27
2	Easy for teachers to use	3,37
3	Enhances student creativity	2,63
4	Easy to find feedback	3,24
5	Quality of feedback	3,00
6	Consistency of provided information	2,88
7	Reliability of provided information	2,66
8	Enhances the learning experience	3,00
9	Innovation in teaching	3,15

Based on the data obtained in the third aspect regarding ChatGPT's performance, several findings are as follows. Firstly, most teachers feel that the use of ChatGPT is relatively easy for students, with an average score of 3.27. Moreover, teachers are comfortable and familiar with using ChatGPT, with an average score of 3.37. However, when it comes to enhancing student creativity, teachers gave a slightly lower rating with an average score of 2.63.

In terms of feedback, teachers feel that ChatGPT can provide feedback that is found to be well, with an average score of 3.24. Additionally, teachers also state that the quality of feedback provided by ChatGPT is quite good, with an average score of 3. Nevertheless, teachers suggest that the information provided by ChatGPT still needs

further attention in terms of consistency, with an average score of 2.88. Furthermore, teachers also feel that the information provided by ChatGPT requires further verification in terms of reliability, with an average score of 2.66. Nonetheless, teachers acknowledge that the use of ChatGPT can enhance the learning experience, with an average score of 3. Teachers also see that the use of ChatGPT can bring innovation to teaching, with an average score of 3.15.

Table 4. Respondents' Views on the Potential Use of ChatGPT in Education.

No	Criteria	*Mean*
1	Usage among students in the classroom	2,88
2	Usage for basic learning	2,67
3	Usage for information retrieval	2,59
4	Misuse for copying information	3,24
5	Students will become lazy	2,90
6	Less inclined to think deeply	2,98
7	Underestimating the learning process	2,59
8	Enthusiastic about exploring information	2,93
9	Material renewal	3,20
10	Socialization of usage	3,42

In the fourth aspect regarding the potential use of ChatGPT in education, several findings were identified. First, teachers perceive the potential for using ChatGPT together with students, although with a relatively low rating, with an average score of 2.88. This suggests that teachers see opportunities to integrate ChatGPT into the learning process with students. However, there are concerns raised by teachers regarding the potential misuse of ChatGPT, with an average score of 3. Additionally, they are worried that using ChatGPT could make students become lazy (average score 2.9) and underestimate the importance of their learning (average score 2.59). Despite these concerns, teachers still have confidence in the potential of ChatGPT. They believe that ChatGPT can assist in updating learning materials, with an average score of 3.2. Furthermore, teachers also feel the need for socialization regarding ChatGPT usage, with an average score of 3.42.

Regarding the indicator of socialization of usage, there was a difference in attitudes between middle school (SMP) and high school (SMA) teachers. Based on the results, middle school teachers gave a high rating of 3.83 for the socialization of usage, while high school teachers rated it lower at 3.00. This difference is also supported by a p-value of 0.04, which is less than 0.05. This indicates that the null hypothesis (Ho) is rejected, signifying a significant difference between the two groups.

Furthermore, the research indicates a difference in attitudes between teachers in exact and non-exact disciplines. This difference is evident in the variable related to using ChatGPT for in-depth learning. Teachers in exact subjects believe that ChatGPT is not limited to basic topics but can be used for more in-depth learning. In contrast, non-exact subject teachers feel that ChatGPT is primarily for introductory and basic topics. The table shows that exact subject teachers (e.g., science, mathematics, IT) and non-exact subject teachers (e.g., social studies, religion, language) have significantly different scores. Exact subject teachers had an average score of 2.29, while non-exact subject teachers scored 3.05, with a p-value (2-tailed) of 0.015. Since the p-value (2-tailed) is less than 0.05, it means that the null hypothesis is rejected, indicating a difference in attitude.

Discussion

Based on the questions provided and the analysis of the results, it was possible to determine the attitudes and perceptions of teachers regarding the use of ChatGPT in education. In the analysis of the four aspects identified in the study, the index values ranged from 1 to 4. The values obtained for the aspects under investigation showed that teachers displayed positive attitudes and enthusiasm when it came to using ChatGPT for their work. Overall, it can be concluded that some teachers are already familiar with ChatGPT and use it to search for information. However, some teachers still feel the need for specific training to use ChatGPT more effectively. This highlights the importance of providing appropriate training and support to facilitate the use of ChatGPT in education.

Based on their experience of using ChatGPT,

teachers found that ChatGPT was helpful in increasing their knowledge, making it easy to find the information they needed, boosting their confidence when mastering the subject matter, and simplifying the process of creating project assignments. In this process, teachers conducted experiments by asking questions related to the subjects they teach. However, despite their positive experiences, teachers still hesitated to use ChatGPT directly with students in the classroom. This suggests limitations in using ChatGPT directly with students in the classroom and a lack of trust in ChatGPT's responses. Teachers also felt that the information provided by ChatGPT needed further verification in terms of reliability. On the other hand, they saw the potential of ChatGPT in creating a more engaging and innovative learning experience. Teachers had expectations and awareness of the challenges that might arise from using ChatGPT.

Hence, they believed in the importance of preparing students before introducing ChatGPT into the classroom. This preparation was seen as necessary to ensure that students have an initial understanding and reinforcement of their character. However, there were slight differences in perceptions, as shown in Table 4, where middle school (SMP) and high school (SMA) teachers had different views. Middle school teachers believed that socialization was essential for middle school students before using ChatGPT, suggesting that middle school students might not be ready to learn independently. On the other hand, high school teachers believed that high school students are more independent and capable of identifying better learning resources, implying that they need less socialization. This is consistent with research suggesting that high school students may have better self-directed learning skills (Thoken, 2014).

Although some teachers showed a positive attitude, some still had reservations about ChatGPT. Some believed in the potential of ChatGPT as a learning tool but felt that it required initial training. Some of these beliefs can be attributed to teachers' fear of a knowledge gap, which affects their confidence in using technology in the classroom (Granic, 2019). The knowledge gap can result in variations in the teaching and learning process. Some teachers also perceived that ChatGPT's utility was not a pressing concern (Yeop, 2016). In the study, some teachers believed that ChatGPT might not enhance students' creativity. They thought that students might become overly dependent on technology for quick responses and might be tempted to copy information without thinking deeply about the material. As a result, teachers worried that students would rely too heavily on ChatGPT for answers, hindering the development of their critical thinking skills. Therefore, teachers felt the need to ensure that ChatGPT usage was combined with the development of critical thinking, assessment, and broader reflection skills.

When considering how ChatGPT provides responses to questions, it is similar to the classroom learning process, which emphasizes discussion and interaction between teachers and students. It aims to shift to a student-centered approach. Effective communication in the classroom requires specific factors to be in place. One critical factor is the ability to communicate. Effective communication is not just about students answering questions; it also involves students asking questions (Faizah, 2021). This aligns with the process of learning science. In science education, students are expected not only to learn facts and scientific concepts but also to apply the scientific method. They are encouraged to observe natural phenomena, ask questions, design experiments, collect data, analyze results, and draw conclusions based on evidence. This process involves problem-solving, critical thinking, communication, and collaboration among students. Science education is not just about acquiring knowledge but also about developing scientific thinking skills. Students are taught to develop the ability to observe, analyze, conclude, and communicate their research findings. They also learn to appreciate the importance of honesty, integrity, and ethics in conducting scientific research.

The study also showed differences in attitudes between teachers in exact and non-exact disciplines. Teachers in exact subjects believed that ChatGPT could be used not only for basic topics but also for in-depth learning. This implies that students were expected to observe and find problem solutions by applying the knowledge they had acquired. Asking questions to promote students' thinking is important in education. The ability to ask questions indicates a thought process that encourages students' thinking skills. Asking questions also serves as a tool to trigger critical thinking, creativity, and student exploration. Through relevant and meaningful questions, students can develop analytical, evaluative, and synthesis thinking skills. They learn to connect the concepts they know with new

information, identify patterns, solve problems, and develop a deep understanding. Thus, ChatGPT can be a tool to understand students' thinking patterns in learning. In the classroom, students who typically only respond to questions are changing; students are asked to create questions. This innovation requires a reevaluation of the learning objectives. Evaluation questions will also evolve beyond multiple-choice and essay questions. Students will be encouraged to identify problems and find solutions. This method can be used as a project and collaborative learning that supports students' thinking skills with the help of technology. A classroom environment conducive to discussion can be created, and the learning process can be integrated with technology. This change needs to be followed by a clear understanding of the teacher's role. In future learning, teachers have the role of being role models and facilitators in the classroom. Teachers do not need to worry about their role with ChatGPT. ChatGPT cannot replace the role of a teacher. Therefore, professional development for teachers should be improved to keep up with technological advancements. Teachers should be able to integrate technology into their teaching effectively

CONCLUSION

Conclusion

Based on the research conducted to understand teachers' perceptions and attitudes toward the use of ChatGPT in education, several conclusions can be drawn. Teachers demonstrated a positive and enthusiastic attitude toward the use of ChatGPT in education, with an average variable rating of 3.37. They acknowledged its benefits in lesson preparation and planning, material development, and enhancing students' insights, with an average rating of 3.32. While teachers felt assisted by ChatGPT, they still had concerns about trust and their own implementation abilities, with a relatively high average rating of 3.34. Therefore, they believed that there should be a need for student orientation before using ChatGPT in education, with an average variable rating of 3.42, to prepare students and strengthen the teacher's role as a facilitator. Furthermore, they believed that ChatGPT could introduce new methods that make learning more interactive and students more engaged, with an average rating of 3.15.

In conclusion, ChatGPT holds significant potential in supporting education, but it requires orientation, initial understanding, and strengthening of the teacher's role in its implementation.

Suggestions

For future research, it would be beneficial to investigate students' perspectives as a comparison to design appropriate ChatGPT-assisted learning. Additionally, research can focus on measuring students' learning outcomes after using ChatGPT in education. Comparisons could be made between groups using ChatGPT and those who do not to assess whether this technology positively impacts student achievement.

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