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ChatGPT as a Tool in Contemporary Teaching Practice

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Abstract

The study examines the growing presence of generative artificial intelligence in education and focuses on teachers' perceptions of ChatGPT as a support tool in the teaching and learning process. The development of AI is transforming teaching practices by enabling content personalisation, the creation of educational materials, and more efficient lesson preparation; at the same time, it raises questions about the reliability of generated content, ethical considerations, and teachers' digital competencies. In the context of the specific characteristics of the Polish education system – an ageing workforce, the feminisation of the profession, and the outflow of young teachers – the implementation of technological innovations may be uneven. The study aims to explore teachers' familiarity with ChatGPT, its use in their daily practice, and the barriers and concerns associated with its adoption. The findings contribute to the discussion on the responsible integration of AI in education and indicate directions for teachers' professional development.

Keywords: artificial intelligence, ChatGPT, teachers, education.

Introduction

In today's society, there is a constant, dynamic development of artificial intelligence in the field of education (Kamalov et al., 2023; Nguyen et al., 2023). This includes the use of available AI-based tools in the daily teaching work of teachers, thus determining a change in the way of teaching and learning (Alfehaid & Hammami, 2023; Ali et al., 2024; Pérez et al., 2020). This has an impact not only on teachers, whose daily teaching work can be facilitated, but also on students, who are presented with new content in a different, more interesting form. Particularly noteworthy in the field of education is the conversational language model developed by OpenAI, known as ChatGPT (Hubbard & Schulze, 2025; Tlili et al., 2023). It is well known that chatbots of this type have been used for years as tutors and teaching assistants, among other things (Pérez et al., 2020; Yang & Evans, 2019). Literature on this subject is also available and points to the very wide application of chatbots in foreign language learning (Kılıçkaya & Kic-Drgas, 2025; Yang & Kyun, 2022) and the individualisation of the education process. It

should be emphasised that in recent years, these tools have become increasingly accessible to everyone, easier to use, and arouse curiosity to try conducting conversations, which often translates into the possibility of using these tools in everyday professional work (Hubbard & Schulze, 2025; Romero et al., 2024). Over the years, ChatGPT has been improving its functionality, allowing it to be used not only for searching for information, but also for teaching lessons and individualising educational content for students with diverse needs, while also allowing for the development and illustration of content – which reduces the burden on teachers, saves time, and gives them a sense of innovation (Escalante et al., 2023; Imundo et al., 2024; Kamalov et al., 2023). The teaching profession around the world involves a constant search for new solutions, content, and ways of teaching children so that the process is interesting and effective for them, which often raises many questions. Imundo et al. (2024) suggest that generative chatbots may support users' cognition as collaborators or by helping to offload lower-level tasks, while emphasising that the effectiveness of such support depends on the user's level of expertise. At the same time, the literature on the subject highlights a number of concerns and challenges associated with artificial intelligence, including the reliability of the content generated, the ethics of the process, and the digital skills of teachers (Baker et al., 2023; Tlili et al., 2023). The literature on the subject reflects on the role of technology in the education process – to what extent and in what dimension it can replace the human factor and to what extent it should (Baker et al., 2023). On the one hand, we have the advantages of using generative artificial intelligence, and on the other hand, we point to what raises concerns and criticism, however, understanding teachers' own perspectives is critical. This raises the question of whether this technology constitutes a challenge for educators and what implications it carries for their practice. The literature on this subject points to the openness of teachers (Alwazzan, 2024; Kılıçkaya & Kic-Drgas, 2025), but also barriers: a lack of adequate preparation in this area, as well as limited access and a lack of or limited support from the institutions where they work (Ali et al., 2024; Hubbard & Schulze, 2025). In this context, the Polish education system is of particular importance due to its specific characteristics: an ageing teaching profession, young people leaving the profession after five years of work to pursue other careers, the feminisation of the profession, and the dominance of public institutions, both in rapidly developing large cities and small rural areas (Eurostat, 2020). This may be determined by the fact that the process of implementing and using various types of technological innovations may proceed unevenly.

The findings of the present study are interpreted with reference to the European Framework for the Digital Competence of Educators (DigCompEdu) (Redecker, 2017). The framework conceptualises educators' digital competence across six interrelated areas: professional engagement, digital resources, teaching and learning, assessment, empowering learners, and facilitating learners' digital competence. From this perspective, the effective use of ChatGPT requires more than operational familiarity with the tool. It also involves the ability to critically evaluate and adapt AI-generated content, integrate it purposefully into teaching and assessment, use it to address learners' diverse needs, and engage in continuous professional development. In the present study, DigCompEdu is used as an interpretive framework rather than a measurement model, as the questionnaire was not designed to assess its specific competences or proficiency levels.

This article is part of a trend in empirical research on teachers' perceptions of the use of ChatGPT in their daily professional practice. The main objective was to examine the extent to which teachers are familiar with this tool, how they use it, and what barriers and concerns they associate with its use. The results of the study can make a significant contribution to the discussion on the conditions for the effective and responsible integration of generative AI into the Polish education system, as well as provide practical guidance for developers of professional development programmes for teachers.

Research Methodology

The study was conducted in accordance with quantitative research methodology. The data was analysed using IBM SPSS Statistics 27.

Research problems

The aim of the study was to examine teachers' opinions on artificial intelligence (AI) tools and the possibilities of their application in professional practice. In line with this objective, the following research questions were formulated:

Research questions:

1. What proportion of the surveyed teachers report being familiar with ChatGPT?
2. Do teachers use ChatGPT, and if so, how do they use it?
3. What concerns do teachers have regarding the use of ChatGPT?

Research method

Study Participants

The study involved 76 female teachers (100% women) who, at the time of the study, had a mean age of 34.7 years ($SD = 6.84$) and an average of 8.57 years of teaching experience ($SD = 5.20$). The vast majority (86.8%) were employed in public schools, while 13.2% worked in non-public institutions. Most participants were employed in mainstream kindergartens and primary schools located in large cities. A detailed distribution of participants by type of institution and workplace location is presented in Table 1.

Table 1

Distribution of participants by type of institution and workplace location

	N	%
Type of institution:		
Mainstream kindergarten	32	42.1
Mainstream primary school	23	30.3
Mainstream secondary school	2	2.6
Integrated kindergarten	4	5.3
Integrated school	0	0
Special education institution	15	19.7
Rehabilitation and educational centre	0	0
Psychological and pedagogical counselling centre	0	0
Other	0	0
Workplace location:		
Rural area	2	2.6
City with up to 50,000 inhabitants	7	9.2
City with 50,000-200,000 inhabitants	14	18.4
City with more than 200,000 inhabitants	53	69.7

The sample had a highly specific composition: all participants were women enrolled in postgraduate studies, and most worked in mainstream kindergartens or primary schools located in cities with more than 200,000 inhabitants. Therefore, the sample cannot be considered representative of the population of teachers in Poland. Participation in postgraduate education and employment in large urban areas may be associated with different opportunities for professional development and access to digital technologies. However, the study did not directly examine these factors. Consequently, the reported levels of familiarity with, use of, and attitudes towards ChatGPT should be interpreted as characteristics of the surveyed group and not as estimates for the wider population of Polish teachers.

Research Instrument and Procedure

The study employed an original questionnaire developed by the authors for the purposes of this research. Its structure was aligned with the research aim and research questions. The questionnaire consisted of three thematic sections and a demographic information form. The first section concerned participants' familiarity with and use of ChatGPT. The second section included questions about the frequency and areas of its use in professional practice, as well as its perceived usefulness and impact on work efficiency. The third section addressed concerns, barriers, training needs, and conditions that could support the use of ChatGPT in education. All questionnaire items were closed-ended and used either single-choice or multiple-response formats, depending on the type of information collected.

The questionnaire was designed as an exploratory descriptive instrument consisting of independent items. It was not intended to measure a latent construct or produce a composite score; therefore, internal consistency coefficients, such as Cronbach's alpha, were not applicable. A separate pilot study and formal content-validation procedure were not conducted, which should be taken into account when interpreting the findings. The questionnaire did not collect information about the specific version or model of ChatGPT used by the respondents. Therefore, their assessments refer to their general experience of using ChatGPT and cannot be attributed to a particular version or model.

Results

TEACHERS' FAMILIARITY WITH AND USE OF CHATGPT

In response to the question "Do you know what ChatGPT is?", all teachers (100%) answered affirmatively. Moreover, 100% of the respondents reported having used this tool at least once. However, teachers differed with respect to the frequency of ChatGPT use. Detailed information on this issue is presented in Table 2.

Table 2

Frequency of ChatGPT Use Among Teachers

	N	%
<i>How often do you use ChatGPT in your professional work?</i>		
Daily	1	1.3
Several times a week	34	44.7
Several times a month	17	22.4
Occasionally	20	26.3
Never	4	5.3

Although all participants reported having used ChatGPT at least once, the frequency of its use in professional work varied: 46.0% used it daily or several times per week, whereas 5.3% reported never using it professionally. This indicates that familiarity with ChatGPT did not translate into equally regular use in professional practice. Viewed through the DigCompEdu framework, this distinction is important because teachers' digital competence extends beyond awareness or operational use and includes the purposeful selection, evaluation, and adaptation of digital resources for teaching (Redecker, 2017). The present study did not directly measure these competences or examine factors associated with frequency of use; therefore, it cannot determine why some teachers used ChatGPT more regularly than others.

Teachers also varied in terms of how they applied ChatGPT in their professional practice. Information regarding specific areas of use is presented in Table 3.

Table 3

Areas of ChatGPT Use Among Teachers

	N	%
<i>In which areas of your professional work do you most frequently use ChatGPT?</i>		
<i>Total</i>	269	100
Preparation of lesson plans	67	24.9
Development of educational materials (e.g., worksheets, tests)	50	18.6
Lesson individualisation (e.g., adapting materials to students' needs)	42	15.6
Adaptation of assessments for students with special educational needs	40	14.9
Preparation of scripts for school ceremonies and events	45	16.7
Other	25	9.3

* *Note.* N may exceed the total number of participants due to multiple responses.

Lesson planning was the most frequently indicated area of ChatGPT use (24.9% of all responses), followed by the development of educational materials (18.6%). These applications correspond to the DigCompEdu areas of Digital Resources and Teaching and Learning, as they involve the creation and adaptation of digital resources for teaching. Responses concerning lesson individualisation (15.6%) and the adaptation of assessments (14.9%) can also be considered in relation to the areas of Empowering Learners and Assessment. This interpretation identifies the DigCompEdu areas corresponding to the reported applications of ChatGPT; however, it does not demonstrate that the generated materials were accurate, pedagogically appropriate, or effectively adapted to learners' needs, as these aspects were not examined in the study.

A substantial majority of teachers (80.3%) considered ChatGPT to be a useful tool in their professional practice, and 67.1% agreed that using ChatGPT had positively influenced their work efficiency. A detailed distribution of responses to these two questions is presented in Table 4.

Table 4

Teachers' Opinions on the Usefulness of ChatGPT and Its Positive Impact on Work Performance

<i>Do you consider ChatGPT to be useful in your work?</i>		<i>Do you agree with the statement that using ChatGPT has positively influenced your work efficiency?</i>	
	%		%
Very useful	30,3	Strongly disagree	1.3
Rather useful	50,0	Rather disagree	21.1
Neutral	17,1	No opinion	10.5
Rather not useful	1,3	Rather agree	56.6
Completely useless	1,3	Strongly agree	10.5

Most participants evaluated ChatGPT as very or rather useful (80.3%), while 67.1% rather or strongly agreed that it had positively influenced their work efficiency. The difference between these response distributions indicates that perceived usefulness should not be equated with an equally positive assessment of efficiency. From the DigCompEdu perspective, perceiving a digital tool as useful does not in itself demonstrate competence in selecting, evaluating, and adapting digital resources. Moreover, because the study did not include objective indicators of time savings or work quality, the results concern perceived rather than demonstrated improvements in efficiency. Relationships between individual responses to the two questions were not analysed.

Barriers and Challenges

Teachers participating in the study were asked to indicate their primary concerns related to the use of ChatGPT in education. Their responses are presented in Table 5.

Table 5

Teachers' Concerns Regarding the Use of ChatGPT

	N	%
<i>What are your main concerns related to the use of ChatGPT in education?</i>		
<i>Total</i>	166	100
Lack of knowledge on how to use the tool effectively	31	18.7
Concerns about incorrect information generated by ChatGPT	74	44.6
Lack of time to learn how to use new technologies	32	19.3
Limited access to technology at school	29	17.5
Other	0	0

* *Note.* N may exceed the total number of participants due to multiple responses.

Concerns about incorrect information generated by ChatGPT accounted for 44.6% of all responses selected and were more frequent than the other listed concerns. From the perspective of DigCompEdu, this result draws attention to the importance of critically evaluating the credibility and suitability of digital resources before using them in teaching. The remaining responses indicate that the reported concerns also involved time, knowledge, and access to technology. However, because this was a closed-ended, multiple-response question, the findings show the relative frequency of the listed concerns rather than their prevalence among individual teachers or a comprehensive hierarchy of all possible concerns related to ChatGPT.

Responses concerning school-based support showed that 52.6% of participants reported that no training on the educational use of AI tools had been provided in their schools, whereas 47.4% reported that such training had been offered. In addition, 85.5% expressed willingness and 9.2% strong willingness to learn more about ChatGPT in the future, provided that the tool was easier to use, while 5.3% reported no such need. As relationships between training availability, concerns, and willingness to learn were not analysed, these results should not be interpreted as evidence that the lack of training caused the reported concerns.

This pattern is consistent with responses to the question concerning the conditions that would need to be met for teachers to decide to use ChatGPT (see Table 6).

Table 6

Conditions for Using ChatGPT According to Teachers

	N	%
<i>What conditions would need to be met for you to decide to use ChatGPT?</i>		
<i>Total</i>	263	100
Training or workshops on the educational use of ChatGPT	75	28.5
Easier access to technology (e.g., better equipment at school)	69	26.2
Assurance that the generated content is accurate and reliable	50	19.0
More examples of practical applications in teachers' work	69	26.2
Other	0	0.0

* *Note.* N may exceed the total number of participants due to multiple responses.

The responses concerning the conditions necessary for adopting ChatGPT further clarify the structural and professional factors influencing its integration. The most frequently selected condition was participation in training or workshops on the educational use of ChatGPT (28.5%), highlighting the importance of formal professional development. This finding reinforces the interpretation that teachers' hesitations are closely linked to perceived gaps in digital and methodological competence.

Two other conditions – easier access to technology (26.2%) and more examples of practical applications in teachers' work (26.2%) – were selected with comparable frequency. The former underscores the continued relevance of institutional and infrastructural support, while the latter points to

a need for contextualised, practice-oriented guidance rather than abstract knowledge about AI tools. Teachers appear to seek concrete demonstrations of pedagogical value before fully committing to systematic use.

Assurance that generated content is accurate and reliable (19.0%) was also identified as a necessary condition, aligning with the previously noted concerns regarding misinformation. However, the slightly lower percentage compared to training and infrastructure suggests that teachers may perceive reliability not only as a technological issue but also as something that can be mitigated through improved competence and critical use.

Finally, teachers were asked to indicate the extent to which they agreed with the statement that AI tools such as ChatGPT may support teachers' work in the future. More than half of the respondents (52.6%) were unable to take a clear position on this issue. Nearly half (46.1%) expressed agreement with the statement (38.2% rather agree; 7.9% strongly agree), while only 1.3% believed that artificial intelligence would not be capable of supporting teachers in their professional practice in the future.

Taken together, the findings indicate that the broader adoption of ChatGPT in educational practice depends on a combination of professional development, institutional support, practical exemplification, and strengthened trust in AI-generated outputs. The results suggest that teachers' openness to AI is conditional rather than resistant, shaped primarily by structural and competency-related factors rather than ideological opposition.

Conclusion

The aim of the study was to identify the level of awareness and perception of ChatGPT among teachers, ways of using it in everyday professional practice, and barriers and concerns related to its application in the Polish education system. The results obtained allow us to formulate empirical, theoretical and practical conclusions.

First, the results of the study indicate that ChatGPT is a tool known and used by the teachers surveyed in Poland. The fact that all respondents (100%) declared their familiarity with this tool and that the vast majority had used it at least once shows that generative AI was no longer a niche phenomenon within the surveyed group. This result is consistent with broader trends documented in the literature, indicating the dynamic development of AI tools in educational environments around the world (Kamalov et al., 2023; Nguyen et al., 2023). At the same time, the variation in frequency of use – from daily use to occasional experimentation – suggests that the integration of ChatGPT into teachers' professional practice is heterogeneous and conditioned by a number of individual and institutional factors (Ali et al., 2024; Hubbard & Schulze, 2025).

Second, an analysis of the areas of application of ChatGPT revealed that teachers perceive this tool primarily as a support in the preparatory and organisational phase of their teaching work. The dominant applications – lesson planning (24.9%) and developing educational materials (18.6%) – indicate that teachers treat ChatGPT as a tool to increase work efficiency rather than a substitute for basic pedagogical activities. This result corresponds with the findings of Imundo et al. (2024), who indicate that generative chatbots can support experts by relieving them of lower-order tasks, freeing up cognitive resources for activities requiring deeper reflection. A particularly significant result is the relatively high percentage of responses regarding the individualisation of lessons (15.6%) and the adaptation of assessment for students with special educational needs (14.9%), suggesting that teachers recognise the potential of AI not only as a tool for increasing productivity, but also as a mechanism for supporting inclusive practices.

Third, the results regarding the perceived usefulness of ChatGPT are clearly positive – 80.3% of respondents found the tool useful, and 67.1% confirmed its positive impact on work efficiency. Alwazzan (2024) reported positive assessments of the potential of AI chatbots to enhance students' digital dialogue skills and to be integrated into instructional practices. However, that study did not examine teachers' work efficiency, so it provides only indirect context for the present findings. At the same

time, the presence of a minority expressing neutrality or disagreement indicates heterogeneity of experience, which may reflect differences in digital competence, subject specialisation or prior attitudes towards technological innovation (Ali et al., 2024).

Fourth, the dominant concern among the teachers surveyed was doubts about the credibility and reliability of the content generated by ChatGPT (44.6% of responses). This result indicates a high level of vigilance among the respondents and is consistent with the findings of Tlili et al. (2023), who point out that issues of integrity, truthfulness and reliability of ChatGPT are major barriers to its wider adoption in an educational context. At the same time, barriers related to lack of time to learn new technologies (19.3%) and insufficient digital competences (18.7%) point to structural deficits in the professional preparation of teachers, as also highlighted by Ayanwale et al. (2025) in the context of the need for targeted professional development programmes. Although evaluations of the current usefulness and efficiency of ChatGPT were predominantly positive (80.3% and 67.1%, respectively), responses concerning the future role of AI were less decisive, with 52.6% of respondents expressing no clear opinion. Because the study did not analyse relationships between responses to these questions, it cannot be determined whether the same respondents who evaluated ChatGPT positively were also uncertain about its future role. The results therefore indicate differences in the distributions of responses across these aspects rather than a contradiction at the individual level. In addition, concerns about incorrect information accounted for 44.6% of all responses selected in the multiple-response question. As the questionnaire did not examine teachers' verification practices, the study cannot determine how this concern influenced their actual use of ChatGPT.

Fifth, the results regarding the conditions necessary for the wider implementation of ChatGPT indicate that teachers' openness to AI is conditional rather than based on resistance. The most frequently mentioned conditions – training and workshops (28.5%), easier access to technology (26.2%) and more practical examples of applications (26.2%) – suggest that the key factors determining the use of ChatGPT are formal professional development, institutional support, and contextual, practice-oriented methodological guidance. These results are consistent with the findings of Hubbard and Schulze (2025), who argue that the main goal of teachers should be to develop the ability to critically and consciously use generative AI tools as part of continuous professional development.

A comparison with research conducted among Nigerian in-service teachers reveals both similarities and important contextual differences. Ayanwale et al. (2025) found that perceived usefulness and ease of use were among the factors associated with teachers' intention to adopt ChatGPT and emphasised the importance of targeted professional development. The present findings similarly indicate positive evaluations of usefulness and a demand for training and practical guidance. However, the Nigerian study was conducted after participants had completed structured training, whereas the present study did not standardise respondents' previous training experiences, and 52.6% reported that their schools had not provided training on the educational use of AI. Direct comparisons should therefore be made cautiously because of differences in research design, sample, and educational context.

The findings point to three practical priorities for educational policy and the system of in-service teacher development. First, access to training should be strengthened, as 52.6% of respondents reported that their schools had not provided training on the educational use of AI, while training and workshops constituted the most frequently selected condition for using ChatGPT more widely (28.5% of responses). Second, professional development should be practice-oriented and address the applications reported by the participants, including lesson planning, the development of educational materials, lesson individualisation, and the adaptation of assessments. It should also develop teachers' ability to critically evaluate AI-generated content, given the prominence of concerns about incorrect information. Third, training initiatives should be accompanied by adequate access to technology, which accounted for 26.2% of responses concerning conditions for using ChatGPT. These implications identify areas of support indicated by the descriptive findings; the study did not evaluate the effectiveness of any particular training programme or educational policy.

Considered through the lens of DigCompEdu, the findings suggest that teachers currently use ChatGPT primarily in areas related to Digital Resources, Teaching and Learning, and Empowering Learn-

ers. At the same time, their concerns about content reliability and their demand for training point to the importance of further developing competences related to the critical evaluation of digital resources and continuous professional learning. This interpretation remains exploratory, as the study did not directly measure the competence areas distinguished in DigCompEdu.

The limitations of this study should be emphasised. The composition of the sample constitutes a major limitation of the study. All 76 participants were women enrolled in postgraduate studies, while most worked in mainstream kindergartens or primary schools and in cities with more than 200,000 inhabitants. This concentration substantially limits the external validity of the findings, which cannot be generalised to the population of teachers in Poland. In particular, the high levels of familiarity with and use of ChatGPT may reflect the characteristics of the surveyed group and its educational and professional context. As teachers' digital competence and actual access to technology were not directly measured, the study cannot determine whether participation in postgraduate education or employment in a large city influenced the responses. Moreover, the specific versions or models of ChatGPT used by the respondents were not recorded. As differences between them may affect the quality and functionality of generated outputs, this limits the interpretation and comparability of teachers' assessments of the tool. In summary, this study makes an empirical contribution to the discussion on the conditions for the effective and responsible generative integration of AI into the Polish education system.

Future research is planned to include a larger and more diverse sample of teachers and to examine associations between professional experience, type and location of the employing institution, and the frequency and areas of ChatGPT use. A larger sample should allow for more reliable comparisons between teacher groups and a more comprehensive analysis of the factors associated with the professional use of generative AI.

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