

Infiltration of artificial intelligence in education

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Abstract

The economic sophistication of countries, technological advancements, and the influence of social networks and the media on our lives all accelerate the development of artificial intelligence (AI), which is gradually becoming established in everyday life. Through applied research, we try to point out how easy it is to use AI in the student's life when processing school assignments, with the fact that the quality of the output is sometimes indistinguishable from real students' written work. The initial results of this study show that AI-created works within general education subjects are almost indistinguishable from students' works and also suggest that teachers' recognition of AI-created works is more complex than expected and thus opened a discussion on the importance of comprehensive education and support of teachers.

Keywords: Education, Artificial intelligence, AI, ChatGPT

1 Introduction

The gradual digitisation of society, the accelerator of which was COVID-19, brings many positive aspects, but it also has its opposing sides. The positives of the rapid pace of technical networking and digitisation penetrating education are also points of interest in foreign literature. Many authors in the scientific community dedicate their work and create space for this modern and vibrant field of education, where new, high-quality research and information are constantly being added. The dizzying pace of digitisation brings various pitfalls with it. In general, the COVID-19 pandemic and the introduction of distance education revealed a low level of knowledge and skills in the information technology environment among teachers and a low level of adaptation to the new digital environment and technical networking.

The technical advances and affordability of personal computers, the introduction of the internet into the working life of teachers, a large amount of data and the synergistic effects of

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networking all enabled the rapid and widespread use of artificial intelligence in the everyday life of ordinary citizens. Above all, young people and students are inclined towards technologies and technical innovations with enthusiasm and with the vision of making their work easier, simplifying their lives and adding more fun or free time. As we know, the student is comfortable by nature, and it is then that he becomes more innovative in the use of various techniques that will help him facilitate the fulfilment of school duties or assignments and often begins to reach for the use of other tools and aids, such as artificial intelligence. Thanks to this, artificial intelligence is constantly advancing and improving. Artificial intelligence often intervenes in student work without the knowledge of teachers, thereby distorting the objectivity of the evaluation of written student speech, as evidenced by many personal experiences in long-term distance education.

With a low level of knowledge about the possibilities of working with technologies and artificial intelligence, it is very difficult for the teacher to check the plausibility and originality of submitted works. The only options for minimizing this are reading literacy, reading comprehension, the assumption of copying the textual aids that the teacher used as a model for the covered curriculum together with the students, and the teacher's judgment based on the knowledge of the individual cognitive competencies of individual students.

For this reason, we focused on the current experience of teachers and their level of recognition of student works from works created by artificial intelligence. We are interested in the overall infiltration of artificial intelligence into everyday education with an impact on verifying the plausibility of the originality of student-written works. In our work, we deal with the quality of written works from the point of view of the qualified teachers, the level of education achieved, the age of teachers and the length of teaching experience with the possibilities offered by artificial intelligence in the form of the ChatGPT online platform. The motivation for choosing the topic of the contribution was the secondary expansion of the ongoing research of our dissertations and, at the same time, the broadening of the personal horizons of the digital literacy of teachers regarding active pedagogical practice. From the aspects mentioned above, we formulated a research problem, a research goal based on it. For a better understanding of the complexity of the whole issue, the formulation of research hypotheses followed.

2 Artificial Intelligence

In society, we meet two groups of respondents. Some are intensively and consciously interested in any technological innovations in society. On the other hand, some do not even realise that they use artificial intelligence every day in their everyday activities. From a simple search for information using Internet search engines, through remote control of the air conditioning unit in the home using smartphones, to driving electric cars. When the phrase "artificial intelligence (AI)" is used, many people imagine very intelligent machines that are

programmed to perform various tasks and facilitate the overall physical and cognitive activity of a person in individual spheres of social life. Education is no exception.

2.1 What is Artificial Intelligence - What is the Reality?

Where do the boundaries of recognition between human work and the work of intelligent machines blur? How can one distinguish what was created by the student and what was created by artificial intelligence? Alternatively, is the young generation of students walking into a situation where they will not be able to create, for example, ordinary text-written works on their own without the help of artificial intelligence? If the students move in the direction of mutual coexistence with AI more and more, they may reach a point where they will not be able to evaluate any assigned task independently and adequately and not even be able to fulfil it to the required level. A secondary manifestation of the use of artificial intelligence is the weakening of students' cognitive abilities. "Systems with artificial intelligence can solve tasks that require human intelligence." (Kvasnička et al., 2009, p. 99).

Artificial intelligence is perceived and described by scientists in different ways based on their research. Most often, in the scientific community, we come across the definition that: "it is intelligence demonstrated by machines, as opposed to that shown by humans." It is a field of study in computer science that tries to reproduce what the human brain does." (Spano, 2019, p. 17). Many questions from the field of informatics (computer science) are still unanswered, for example, can a computer think like a human? Is the human brain and its judgment imitable? Can machines adequately replace the activity of the human brain?

2.2 Artificial Intelligence and ChatGPT

The first chatbot, "Eliza", dates to 1966. In recent years, on various websites of shops, entertainment, or state institutions, we can meet chatbots with AI in the form of Life Agents (e.g. Taxana on the website of the Financial Administration), which are supposed to answer basic questions or navigate us where we can find the answer to our question. They increase productivity and help keep the user on the site longer. In response to human questions, chatbots provide an immediate response using natural language, as if it were a human dialogue partner (Følstad, A. et al., 2017).

According to Khalil, the term "Chatbot" indicates a program that can be integrated into various platforms such as virtual assistants on websites with the main goal of simulating human conversations that work based on machine learning techniques and understanding user input and processing their natural language so that their response looks like a conversation (Khalil et al., 2023).

Chatbot technology was used by OpenAI, which created an advanced form of a new revolutionary chatbot that has advanced natural language processing and is powered by complex machine learning techniques, called ChatGPT (Chat Generative Pre-Trained Transformer). The first introduction of ChatGPT, which communicates based on written

conversation in eight languages non-dependent on each other, was at the end of November 2022. Currently, the program can communicate independently in 80 languages of the world. Its basic functionality is in imitating human conversation, but it can create a logo, program, write poems, translate, play games and more. The qualities of ChatGPT are also admirable thanks to its development taking place on more than 40 terabytes of text. If we calculated it mathematically, we could imagine approximately 40 million books in the Kindle reader (Rudolph et al., 2023).

ChatGPT is rapidly gaining popularity among the public when creating marketing texts; it is also gradually being recognised by students, who can use it to draw inspiration when writing school assignments or even to prepare a complete assignment.

The pressure exerted on teachers to be one step ahead of students and to have sufficient information about new trends in digital networking and artificial intelligence is enormous. Based on their experience and knowledge of the content and performance standards for the given subject developed by the Ministry of Education of the Slovak Republic, teachers should be able to determine that the given student acted dishonestly, and that the assignment was prepared by AI or someone else. The student's independent work should be correlated with the performance standard for the required year, the curriculum covered, as well as with the individual knowledge of the student, based on which the teacher should be able to estimate the cognitive and verbal possibilities and abilities of the given student, but also based on his motivation and activity in class.

3 The Issue of Teachers' Competences at Secondary Schools

The surrounding world offers us all a lot of information. "Knowledge - is the result of a person's cognitive activity, which he acquires through his own experience and can have a general nature (concepts, relationships, contexts...), factual nature (names and designations of specific things and phenomena), factual nature (data about facts, dates, names, etc.)" (Petlák 1999, p. 36).

We currently have educational textbooks full of "difficult" texts or complicated tasks and experiments for which the school often has neither the space nor the equipment. "Textbooks or schoolbooks contain didactic processing of the subject matter defined by the curriculum and are a basic didactic tool in implementing the educational process" (Petlák, 1997, p. 52).

For a student to advance to a higher grade, he needs to acquire knowledge, including creating written works, at the minimum required level for each educational subject. Another aspect that guides the teacher and influences the recognizability of the created text presented by the student for his/her work is based on individual knowledge of the student's cognitive abilities during student self-presentation. When creating texts, teachers use the professional terminology for the year the student is studying. Likewise, from the teacher's experience in the stylisation of sentences, their composition, and the overall cross-curricular linking of

information by students during lessons. The cohesion of the teacher's didactic experience and the level of knowledge he imparted to the students during the given subject, in combination with the individual knowledge of the students' cognitive knowledge, ultimately affects the teacher in the overall classification of the student and reading literacy as such when working with students' text works.

3.1 Pupils' Written Works and their Assessment

In pedagogical practice, we encounter situations where a student surprises the teacher in his report, essay, or composition with information from current discoveries, experiments, or tests in the given scientific field outside the content standards of the year in which the student is studying. The reason may be the easy and quick availability of any irrelevant and unverified information on the Internet, originating from various theories and conjectures. "From the point of view of personal constructivism, students begin to perceive themselves as scientists - researchers, whose ideas are formed in the same way as scientific theories" (Nováková, 2015, p. 9). If he detects an attempt to cheat and present someone else's student work as his own, he can adequately take this fact into account in the final evaluation of the student. On the other hand, pupils lack experience selecting irrelevant information from the Internet concerning their cognitive abilities.

During his work, every teacher recognises that the student's pace plays a vital role in preparing for teaching. "The basic condition for conscious work is brain activation. When explaining the learning material, the more information channels the teacher offers to his students, the easier and more permanent the new knowledge will be fixed in their brain" (Nováková, 2015, p. 10).

Petlák E. (1999) agrees and states the following in his publication: "The logical (objective) point of view means that the content of education must ensure a logical connection, continuity of acquired knowledge, abilities and skills." In doing so, one proceeds from simpler to more complex, from easier to harder, etc." (Petlák 1999, p. 56).

When reading with comprehension, students get the opportunity to develop and consolidate processes such as analysis, deduction, induction, the development of selection and comparison, or the synthesis of previously acquired knowledge with newly acquired information and skills offered by the teacher during the lesson is very important. "Understanding the structure of a topic leads to a better understanding of the whole. Such an understanding will ensure the student's inclusion of new knowledge with the previous ones" (Tomášková, 2018, p. 19).

"Attention should also be focused on solving practical tasks necessary in the student's life and enabling independent thinking. It is necessary to create a teaching environment that would engage pupils in learning experiences and enable them to think and create meaning from experiences" (Fančovičová, Prokop 2010, p. 4). Acquiring the skill of reading and writing texts is a supporting element in the development of oneself in the general and professional field of the student.

A high level of literacy is an essential tool for students and teachers. Mutual knowledge of the pupils' possibilities offers space for an objective evaluation of the pupils' written expressions. Not only a creative student can be successful in the cultivated self-presentation of his work, but also a weaker one if he is guided and supported to read and write at the right pace. "The focus of the current teaching process is that students' knowledge, skills and habits are the result of their reasoning" (Tomášková, 2018, p.13).

3.2 Reading Literacy

Text teaching aids are intended to facilitate the teacher's work in increasing the student's reading literacy and support creativity in creating their own written works. "Basic literacy is characterised by a person's ability to read and decode the meanings of what is read. Information is stored in memory and reproduced, more or less modified, as needed" (Kašiarová, 2011, p. 6).

With the increasing skill level of reading literacy, the student's ability to understand the read text, imagination and search for or perception of connections between individual subjects, phenomena and events arising from the text also develops in direct proportion to the student's increasing age and more significant, more intensive experience with reading the text. An increasing degree of understanding of the content of the read text for subsequent use in life is also essential.

In our opinion, the teacher is the mainstay of education in acquiring new vocabulary and adequately creating written works for self-presentation. This skill requires long-term preparation and a lot of energy from the teacher and the student.

"The linguistic concept is connected with scientific and every creative thinking, that is, with the process of productive knowledge. The basic operation here is conceptual generalisation (generalisation, extrapolation), by which "concepts are supplemented, corrected, or even created a new" (Pavlovič, 2012, p. 15).

The text comprises concepts with a specific goal, which the author, the pupil-teacher, wants to convey his knowledge through the text as a means of communication.

From the correctly compiled sequence of text concepts of the student and the teacher, the experience of the read text should be manifested with the awareness of the meaning of the use of information in practical life. Sometimes it is enough to acquire a feeling, an experience from the read text due to the aesthetic function of the text. The opposite case is understanding the meaning of professional terms, which leads to selection and emotionality in the professional scientific field in the expert reader.

"Today, the teaching process with an explanatory-illustrative character, in which the teacher is active, and the student is passive, is unsatisfactory" (Tomášková, 2018, p. 13).

Pupils read very little and are not interested in school textbooks or cannot read with comprehension. Some students look at pictures that do not make sense to them. A deeper meaning. They lack the adequate or paternal literacy necessary to create a text. By reading, the vocabulary is enriched, and the student gains practical experience with the correct text

stylisation, which is essential for the independent creation of written works. Such personal knowledge of the student in class is reflected in the final evaluation of the student. The more the teacher knows the students' feelings, opinions, and way of thinking and expressing, the better he knows how to comprehensively and objectively evaluate their cognitive, psychomotor, and affective possibilities. We focused our research on this essential parallel of distance education - the quality and plausibility of the originality of students' written works vs. the objectivity of teacher assessment.

4 Research Methodology

4.1 Research Problem

Excessive administrative responsibilities at school can lead to teachers' disinterest in innovative networking education. Students can easily use teachers' lack of interest to their advantage when helping themselves with artificial intelligence.

Changes in digitisation and the advent of AI in ChatGPT represent a new challenge for the academic community regarding possible dishonest access by students in the educational environment. This led us to the research problem of recognising texts created by students' AI. On this basis, we set a research goal - to find out the level of recognizability between written works created by students and artificial intelligence by secondary school teachers in Slovakia. We were also interested in whether the teachers had already encountered works prepared by AI instead of the student. While completing the overall picture of the issue, this research tries to answer the following research hypotheses:

1. There is a statistically significant relationship between the success of recognising the text created by the student and created by artificial intelligence and the teacher's age.
2. There is a statistically significant relationship between the success of the recognition of the text created by the student and the creation of artificial intelligence concerning the length of experience of the teacher.
3. There is a statistically significant relationship between the success of the recognition of the text created by the student and the creation of artificial intelligence concerning the teacher's educational level.

Using group random selection, 5 out of 60 state secondary vocational schools in the Trnava and Trenčín Regions in the territory of the Slovak Republic were defined as part of the research set. One list of secondary vocational schools located in the Trenčín and Trnava regions was created from the individual regional lists officially listed in the statistical yearbook of the Secondary School of Education, from which the computer randomly selected five secondary vocational schools. (SOŠ statistical yearbook as of September 15, 2022). The selection did not consider conservatories, special and private secondary schools and gymnasiums. The research

sample consisted of 55 secondary school teachers in the Trenčín and Trnava regions of the Slovak Republic; 75 teachers were approached, assuming that 15 teachers teach in the school. The return rate of the questionnaires was at the level of 73.3 %.

The sample consisted of 20 men, representing 36.4 %, and 35 women, representing 63.6 % of the sample. The largest group in the sample in terms of age were respondents aged 35-44; they made up 50.9 % of the sample. Conversely, the least numerous groups were respondents aged 55-64, who made up only 9.1 % of the sample. In Figure 1, we see the distribution of respondents based on length of practice. Up to 54.5 % of respondents were teachers teaching general education subjects, 40 % taught specialised subjects, and 5.5 % of vocational training masters participated in the research. In Figure 2, we see the sample distribution by type of education.

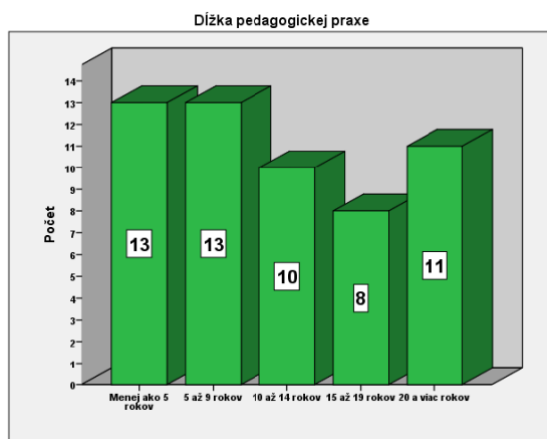


Figure 1: Length of teaching practice

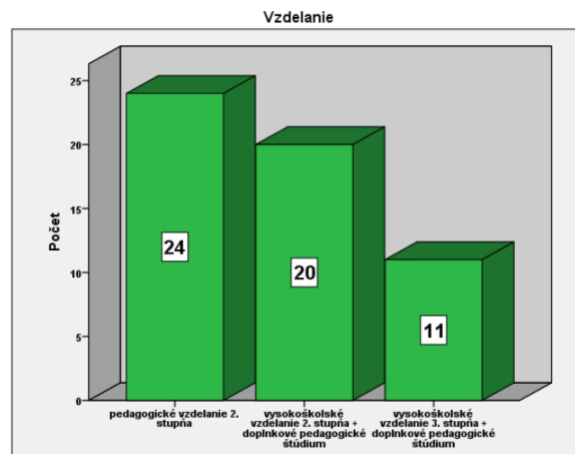


Figure 2: Type of education

4.1.1 Research Design

The primary tool for data collection was an anonymous electronic questionnaire created using the Google tool. With the help of avalanche selection, the researchers contacted the principal or deputy principal of each selected secondary vocational school by e-mail and address with a request to distribute the said e-mail. Data collection took place from September 25th to October 9th, 2023. The questionnaire consisted of an introduction and four parts. The first part was focused on collecting demographic data about the participants. The second and central part of the questionnaire was focused on ten statements from 5 general education subjects, which were always in pairs: 1 authentic answer from a student and one authentic answer that artificial intelligence ChatGPT generated. All ten statements were authentic; the statements were not edited or corrected. Pupils of one secondary school initially prepared their' answers with a registered office in the Bratislava region. One of the authors of this study is a teacher at the mentioned school. Teachers had a choice of 3 options: student work, AI work and student work using AI. In the third part, we were interested in whether teachers

have already encountered the dishonesty of students who used AI in practice. The fourth part left room for teachers to express their opinions.

4.1.2 Data Analysis

Respondents' answers were recorded on Google Excel and Google Docs platforms. To find out the success rate of recognising the text created by the student and created by artificial intelligence, we calculated it as the sum of the correct answers to individual questions 1-10 in the questionnaire. The total score was evaluated on a scale from 0 – the lowest success rate, to 10 – the highest success rate. We used statistical analysis for a comprehensive data evaluation, which we performed in the SPSS 22 program. Due to the established hypotheses and the nature of the data, we used the Spearman correlation test, the Shapiro-Wilk normality test, and the Mann-Whitney U-test for two independent samples in the statistical analysis. We used each of these tests for individual hypotheses by the nature of the specific data appearing in the given hypothesis.

4.1.3 Research Results

55 secondary school teachers were involved in the research. The teachers' direct reactions were that it is tough to distinguish whether it is the student's work or ChatGPT. These reactions are also confirmed by the success rate of recognising text created by the student and created by the AI. The average value of the gross score of the success rate was 5.27 points, which means the success rate of recognising students works at the level of 52.81 %.

Miera úspešnosti rozoznania textu tvoreného žiakom a tvoreného UI
Hrubé skóre

N	55
Priemer	5,2727
Medián	5,0000
Štd. odchýlka	1,92887
Šikmost'	-,307
Špicatosť	,557
Rozpätie	10,00
Minimum	,00
Maximum	10,00

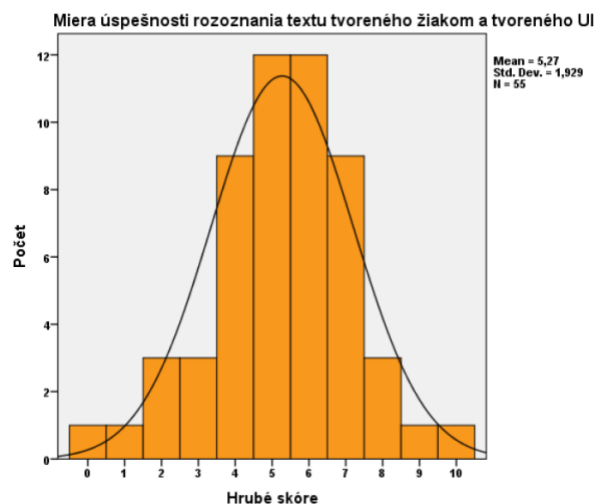


Table 1: Success rate of text recognition

Figure 3: Text recognition success rate

By introducing AI to the public, students were allowed to use it when preparing homework, which is also confirmed by 54.5% of respondents. Novice teachers who completed their pedagogic studies in the 21st century with opportunities to use AI may be able to recognise AI earlier than their colleagues who did not have such direct experience during their studies. From this point of view, we assume a statistically significant relationship between the rate of

success in recognising text created by students and AI and the teacher's age. To test the first hypothesis, we tried to determine if there is a significant relationship between the rate of success in recognising the text created by the student and AI and the teacher's age. To analyse the hypothesis, after considering the variables, we used Spearman's correlation test; where in Table 2: Spearman's correlation test, we see that the correlation coefficient is at the level of 0.054, which means that there is no relationship between age and the success rate of text recognition. This missing relationship is also confirmed in the following indicator, Sig. (2-tailed), where the value is higher than 0.05, which only confirms statistical insignificance. Based on these facts, we conclude that there is no statistically significant relationship between age and the success rate in recognising text created by the student and created by AI. The first hypothesis was not confirmed.

Table 2: Spearman's correlation test

Spearmanov korelačný test		
Miera úspešnosti rozoznania textu tvoreného žiakom a tvoreného UI * Vek		
Spearman's rho	Correlation Coefficient	,054
	Sig. (2-tailed)	,693
	N	55

Literacy, pedagogical experience with the natural expression of students as well as experience with different educational curricula give educators with longer teaching experience a greater chance to recognise work created by AI therefore in the second hypothesis, we verify whether there is a statistically significant relationship between the rate of success in recognising text created by a student and created by AI and length of teaching experience. To analyse the hypothesis, we used the non-parametric Spearman correlation test after considering the variables. Therefore, it is non-parametric because after testing the distribution of the variables, we found that they do not have a distribution according to the Gaussian curve.

In Table 3: Spearman's correlation test, we see that the correlation coefficient is at the level of -0.217, which indicates a weak negative relationship between the length of practice and the success rate of text recognition. Subsequently, we will look at the Sig indicator. (2-tailed), where the value is higher than 0.05, which confirms statistical insignificance. Based on these facts, we conclude that there is no statistically significant relationship between the rate of success in recognising text created by the student and created by AI and the length of practice. The second hypothesis was not confirmed.

Table 3: Spearman's correlation test

Spearmanov korelačný test

Miera úspešnosti rozoznania textu tvoreného žiakom a tvoreného UI * Dĺžka pedagogickej praxe

Spearman's rho	Correlation Coefficient	-,217
	Sig. (2-tailed)	,112
	N	55

In practice, teachers who have completed a technical or economic university and have additionally completed supplementary pedagogical studies, compared to teachers who have completed a regular pedagogical education, are faced with the fact that the level of recognition of text created by a student or AI is markedly different. Therefore, it was interesting for us to build a third hypothesis on the fact that there is a statistically significant relationship in the degree of success in recognising the text created by the student and created by artificial intelligence and the completed university education of the teacher. To complete the overall picture of hypothesis Nr. 3, we see in figure 4 success rate of text recognition created by students and AI for teachers who have a pedagogical education at the level of the value of 6 points.

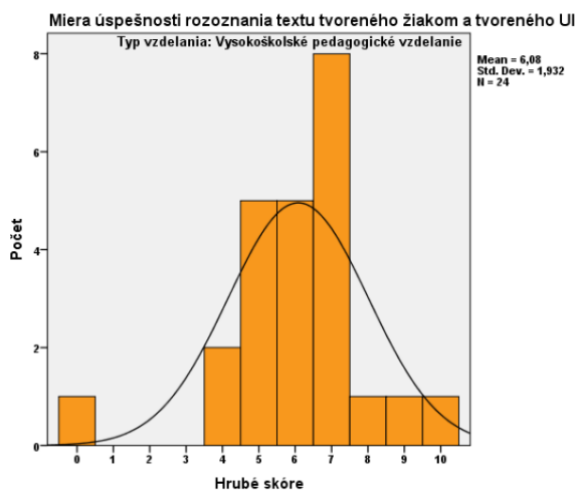


Figure 4: Text recognition success rate University of Pedagogy

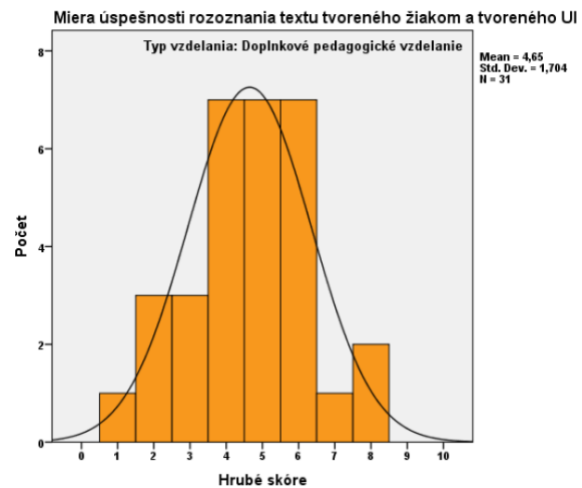


Figure 5: Text recognition success rate University additional pedagogical studies

Figure 5 shows the success rate in recognition of text created by students and AI for teachers who graduated in a different field and supplemented their higher education with additional pedagogical studies at the level of 4.65 points.

To gain knowledge about the normality or abnormality of the data distribution necessary for the subsequent verification of the third hypothesis based on the sample size, we used the Shapiro-Wilk normality test due to the lower number of respondents in the individual samples. In Table 4, based on the data in column Sig. We find that the group of teachers with a university education has a value of 0.017, less than 0.05. For this reason, we must also choose a non-parametric test for testing the hypothesis.

Table 4: Normality test

Miera úspešnosti rozoznania textu tvoreného žiakom a tvoreného UI
Test normality

Typ vzdelania	Shapiro-Wilk		
	Statistic	df	Sig.
Vysokoškolské pedagogické vzdelanie	,895	24	,017
Doplnkové pedagogické vzdelanie	,960	31	,290

When analysing the hypothesis, after considering normality tests and the nature of the distribution of data and variables, we used the non-parametric Mann-Whitney U-test for two independent samples (Table 5). In the test, Asymp. Sig (2-tailed) at the level of 0.002 determined a statistically significant difference between the groups in recognising the text created by the student and created by AI.

Table 5: Mann-Whitney U-test

Mann-Whitney U-test

	Miera úspešnosti rozoznania textu tvoreného žiakom a tvoreného UI
Mann-Whitney U	193,000
Wilcoxon W	689,000
Z	-3,084
Asymp. Sig. (2-tailed)	,002

We will compare this statistically significant difference in text recognition success with the "Mean Rank" values in Table 6: Ranks, where we see that teachers with pedagogical education achieve a statistically higher value at 35.46 compared to teachers with other higher education extended by additional pedagogical studies. The hypothesis has been confirmed.

Table 6: Mean Rank

Miera úspešnosti rozoznania textu tvoreného žiakom a tvoreného UI
RANKY

Typ vzdelania	N	Mean Rank
Vysokoškolské pedagogické vzdelanie	24	35,46
Doplnkové pedagogické vzdelanie	31	22,23
Spolu	55	

5 Discussion

The catalyst for research acceleration was to show teachers the level of AI and how easily students can use it to their advantage. With the help of short texts, the research tried to show that it is complicated to recognise a text written by a student and written by artificial intelligence without knowing the broader context - the written and oral expression of the student, the student's knowledge, abilities and skills in the given subject, the performance standards of the taught subject, the depth of the subjects covered with the students in class, the reading literacy of the teacher - almost unrecognisable. According to the research findings, approximately 52 % of the questioned teachers could correctly recognise text created by a student and texts created by AI. A watchful eye helped some correctly define it, as they noticed small details and differences. When solving the question of how many teachers have encountered a student who brought in completed work that was prepared for him by AI or actively helped him prepare the assignment, the results surprised us. Considering that AI has only been in operation for a year, 54.5 % of teachers have already had experience with dishonest behaviours of pupils and the use of AI. We dare say that introducing artificial intelligence into everyday life has allowed students to find easier ways to complete homework, which can lead to increasing academic dishonesty. This also raises the question of whether our systems are prepared for this kind of academic dishonesty, which is an exciting subject for expanding research activity in the future. When creating hypotheses, we assumed that age and length of practice can be helpful factors in identifying a student's work from the work of AI. At the same time, we assumed that the younger teachers grew up in an era when digital networking and the advent of artificial intelligence were already booming. When determining the second hypothesis, whether the length of practice affects the ability to distinguish between these two texts, we assumed that teachers who have been working in the school system for a longer time will be able to distinguish student works more easily since many years of experience in reading and evaluating works will leave the teacher with skill, he knows the way students express themselves, and therefore it will not be a problem for him to correctly identify the work of students and the work of AI. For both of these hypotheses, our assumptions were not confirmed. Why might this be so? Artificial intelligence, such as ChatGPT, learns on an unimaginably large volume of data, while ChatGPT version 4 is believed to use 100 trillion parameters in its work (Rudolph J. et al., 2023). When evaluating the third hypothesis about the existence of a statistically significant relationship between the level of recognition of texts and the type of teachers' completed education, the results of the research confirmed the hypothesis.

It isn't easy to compare our results with other regional results, as similar research has not yet been published in our territory. In foreign publications, we can find research on the dishonest use of artificial intelligence in academia and various research. However, since this

topic is relatively new, the research itself is still absent. What could teachers do for a better orientation on the issue of artificial intelligence? In addition to attending various engaging trainings, where teachers can also gain positive information about the interesting ways AI can be used in the teaching process, they can take the initiative to familiarise themselves with AI in the form of trial and error.

6 Conclusions

Artificial intelligence has entered everyday life very quickly. Society and its lack of critical thinking, as well as the low level of digital literacy amongst teachers, high bureaucratic burden, insufficient space and lack of interest in following all innovations in the field of information technology, can cause students to seek ways to simplify their school duties increasingly. This applied research aimed to bring to the teachers' attention the maturity of the ChatGPT artificial intelligence tool in general education subjects and the difficulty of recognising its infiltration in student works. In our research sample of 55 teachers, 52.81 % could correctly distinguish student work from ChatGPT AI work. The first and second hypotheses that we set have not been confirmed. The third hypothesis was confirmed. To complete the overall picture of this study, it is necessary to define a certain limitation that could directly or indirectly affect the research results. It should be kept in mind that the data presented in this work represent the individual evaluation of the teachers' statements without a wider knowledge of the students who prepared the text excerpts. We realise that the text excerpts may have been too short for proper assessment. The fact that the students' works were written in the first-person singular and the works written by artificial intelligence were written in the third-person singular could also be of concern to the teachers when evaluating individual excerpts. To draw a general conclusion, whether the possible implementation of changes at the level of work organisation, laws, etc., is a statistically small sample. It is essential to mention that teachers are very busy preparing for classes and administrative matters and receive various requests daily to share information for research. A significant limitation that could make it challenging to evaluate the text is that other artificial intelligence tools can transform the text created by artificial intelligence ChatGPT, BING or others into a text that fully corresponds to the text written by a person.

As part of the research, it would be interesting to expand the issue of the possibilities of AI with the elaboration of an assignment in professional subjects. We propose to expand the research with other demographic data, e.g., age or length of teaching experience.

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