

## **Perceptions of Primary School Principals in the prefecture of Larisa regarding the Introduction of Artificial Intelligence into School Administration**

<https://doi.org/10.69685/THOI1806>

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### **Abstract**

Artificial Intelligence (AI- Artificial Intelligence/ AI) is rapidly transforming several sectors, including the field of education. Although an increasing number of people around the world are becoming interested in AI, there is insufficient research on Greek primary education, especially regarding how Artificial Intelligence can be used in administration. The aim of the present study constitutes the investigation of the attitudes and intentions of principals in primary education schools in the Prefecture of Larisa regarding the implementation and future utilization of Artificial Intelligence tools in school administration. Despite the relatively limited number of participants in the present study, its findings may contribute to decision-making at local and national levels and guide future research. Artificial Intelligence could significantly improve school administration, but it will be effective only if it is used carefully and with due consideration for students' well-being, principals' autonomy, and the importance of human relationships.

**Keywords:** artificial intelligence, school administration, primary education

### **Introduction**

#### *Research problem and purpose*

Artificial Intelligence (AI- Artificial Intelligence/ AI) is rapidly transforming several sectors, including the field of education. Artificial Intelligence is not only useful for teaching and learning, but is also viewed as a potential tool for the effective functioning of schools. It can help automate monotonous tasks, analyze data and improve communication and decision-making processes (UNESCO, 2023).

Although more and more people around the world are becoming interested in AI, there is not sufficient research on the Greek primary education sector, especially regarding how Artificial Intelligence can be used in administration (Neofotistos & Karavakou, 2018). Principals are the most important individuals in the educational process and the ones who handle most of the administrative work (Ertmer & Ottenbreit-Leftwich, 2010). They are also very important in deciding whether and how schools can use these kinds of technologies (Luckin et al., 2016; Holmes et al., 2019).

The aim of the present study is to investigate the attitudes and intentions of principals in primary schools in the Prefecture of Larisa regarding the implementation and future utilization of Artificial Intelligence tools in school administration.

#### *Research questions*

The following qualitative study aims to answer the following research questions:

1. How do primary school principals understand and characterize Artificial Intelligence in the context of school administration?
2. What do they think and what do they plan to do regarding the possible implementation of Artificial Intelligence in administrative tasks?
3. Which factors facilitate or hinder schools in using Artificial Intelligence in their management?
4. What ethical, legal or educational issues do they raise?

5. What do principals believe is the best way to use Artificial Intelligence in the administrative work of the school?

*Significance of the study*

The following study contributes to the emerging issue of artificial intelligence in education, focusing on the perceptions and intentions of principals within a specific geographical context, the Prefecture of Larisa. It also provides useful information that can benefit policymakers, educational authorities and programmes that train teachers on ethics and challenges related to professional readiness.

**Theoretical framework and literature review**

*Artificial Intelligence in education*

Artificial Intelligence refers to computer systems that can correct errors, solve problems and make choices autonomously. Increasingly, school classrooms are moving towards utilizing AI technology. Artificial Intelligence is used in applications that help teachers monitor their students' performance by analyzing data, adapting lessons and checking assignments. Artificial Intelligence is now helping to manage the school by creating timetables, sending messages and processing huge volumes of data more quickly than humans can (Russell & Norvig, 2021; Mandal & Mete, 2023).

Artificial Intelligence contributes to the proper management of the school. Teachers and principals are burdened with a great deal of bureaucracy, such as reports, discussions with parents and school staff. Artificial Intelligence systems could carry out many of these bureaucratic tasks, which would give teachers more time to teach effectively and with greater motivation. An Artificial Intelligence system could automatically summarize student data, send notifications or detect attendance patterns that need to be examined. This service saves time and keeps school information up to date, which is very important for smooth operation (Holmes et al., 2019).

Most importantly, Artificial Intelligence can help educators devote greater attention to their students. They can devote more time to getting to know their students and each individual's needs, preparing lessons and collaborating with other teachers (Anastasopoulou et al., 2025). Artificial Intelligence can help school principals improve or plan how they will allocate resources by providing them with useful information. Artificial Intelligence should support people rather than replace them, with the educational process maintaining its human-centred character—a point emphasized by educators, who stress that the use of Artificial Intelligence should be limited exclusively to areas where it is necessary and not extended across all educational fields. Artificial Intelligence should therefore function in a supportive role, with its systems being fully subject to human control (Gocen & Aydemir, 2020; Anastasopoulou et al., 2025). AI in schools must follow rules of privacy, openness and fairness. Therefore, technology can enhance the human side of teaching (OECD, 2021; Luckin et al., 2016; European Commission, 2019; OECD, 2021).

Adequate professional development of educators regarding the utilization of Artificial Intelligence tools is considered crucial in this field, as a fundamental weakness lies in the insufficient knowledge of how to use these innovative means. The educational community, although supportive of the integration of Artificial Intelligence into teaching practice, simultaneously appears hesitant, emphasizing the need for the development of a clear instructional framework and the provision of appropriate support (Wang & Cheng, 2021). At the same time, ensuring equal opportunities for access to the use of Artificial Intelligence for all students is considered essential; however, this condition proves difficult to implement in practice, as various inequalities emerge with regard to the provision of appropriate technological equipment and resources, particularly in decentralized school units (Mehdaoui, 2024). Equally significant are the differences related to educators' competence in the use of contemporary Artificial Intelligence tools, with technological familiarity, prior experience,

access to relevant technological and online resources, as well as subjective attitudes towards technology constituting key parameters that generally shape their stance towards the utilization of Artificial Intelligence (Ofosu-Ampong, 2023).

#### *School administration and technological transition*

For a school to function properly, lessons and events need to be planned, curricula created, staff and resources coordinated and the overall progress of students and the performance of the school monitored. The responsibilities that teachers are burdened with can often be difficult and time-consuming. Because of this, they have less time to devote to their students. Administrative staff also often have more work to complete, which means they have less time to be creative, to collaborate and to think about what they are doing (OECD, 2019; Selwyn, 2019).

Artificial Intelligence could help with some of these issues and obligations. It can help systems automatically collect and organize data, report attendance or performance, send reminders or announcements and even help school authorities make decisions based on facts rather than their instincts. An AI programme can, for example, examine patterns in how often students come to school to inform staff of potential difficulties early on, or send parents personalized messages. In this way, both teachers and school leadership can be relieved, gain time and be freed from the burden of work (Williamson & Eynon, 2020).

Equally important would be the benefits of utilizing artificial intelligence in school administration. It is clear that speed and accuracy of work have significant benefits, especially in a school environment; however, it is not possible to ignore important issues such as privacy, data security and the ethical parameters of using artificial intelligence. Schools hold this information; therefore, it is vital that Artificial Intelligence systems handle the personal information of children and their families in a responsible and transparent way. In order for Artificial Intelligence to truly contribute to education, there must be clear ethical rules about how technology should be used and companies must pledge that they will always put people above everything else (Van Dijk, 2020; UNESCO, 2021).

#### *Theoretical models*

There are many useful theoretical models that can help us understand how educators perceive and wish to implement Artificial Intelligence in educational administration. The well-known Technology Acceptance Model (TAM) was created by Thomas Davis (1989). People are more willing to use new technology if they believe it will make their work easier and help them. Teachers are more willing to adopt and use Artificial Intelligence in their daily lives if they believe that it will really help them save time or carry out their administrative responsibilities better and if they are convinced that they can use it. The belief that the utilization of Artificial Intelligence tools can facilitate their everyday professional life, while simultaneously providing innovative opportunities for instructional approaches, strengthens educators' positive attitudes towards Artificial Intelligence (Mailizar, Almanthari & Maulina, 2021).

In 2003, Venkatesh and his colleagues created the Unified Theory of Acceptance and Use of Technology (UTAUT). It strengthens this approach by illustrating the effect of social and environmental factors on individuals' use of technology. This theory states that a teacher's choice to develop Artificial Intelligence is based on more than how they feel. The views of their colleagues, the expectations of school principals and whether they have the necessary tools and support also play a role. Teachers are more likely to be willing to use Artificial Intelligence (AI) tools if their schools make it easier for them to do so by providing them with clear guidelines, easy access to technology and an environment where new ideas are welcome.

Rogers' (2003) Theory of the Diffusion of Innovations is another way of looking at this that fits with it. It examines how new ideas and tools spread within a community. It emphasizes how important it is to think about the benefits that people believe new technologies will offer,

how well they fit with old ways and how easy it is to try them out and monitor them before they are fully adopted. This implies that teachers need to experience real benefits, feel that AI fits with their goals and daily routines and be able to test it in limited, safe ways before it can be implemented in schools. Alongside these approaches, ethical and regulatory frameworks such as the General Data Protection Regulation (GDPR) and data protection laws remind us that new technologies used in education must also be fair, transparent and safeguard people's privacy. All these frameworks help educators understand not only how effective and easy Artificial Intelligence is, but also whether it is ethically acceptable and trustworthy in the sensitive environment of school administration (GDPR, 2016; European Commission, 2019).

### **Methodology**

#### *Research design*

This study applies a qualitative research design, which is based on the interpretation and understanding of individuals' experiences and their environment. This approach seeks to explore the deep meanings behind principals' perspectives and experiences, rather than seeking numerical measurements or broad generalizations. The aim of the present research is to clarify how primary school principals in the Prefecture of Larisa perceive Artificial Intelligence (AI) and interpret its potential role in school administration. Each educator has a different view based on their personal history, their years of experience and the school in which they work. The interpretive approach, by focusing on context and personal meaning, allows the researcher to capture the complexities of human knowledge and emotion regarding the integration of AI into a traditionally human-centred area such as education.

The study uses the semi-structured interview as the main method of data collection to achieve this approach. This research method provides both structure to the study and flexibility. Each participant is asked the same basic questions, ensuring that responses are consistent. However, participants also have the opportunity to elaborate on their views and offer personal experiences. This open type of discussion helps the researcher to find new insights, understand things and follow interesting issues that arise during the conversation. In these in-depth discussions, participants can talk about more than just their thoughts on Artificial Intelligence. They can also talk about how they feel, what they hope for and what concerns them about how it may affect their work. These qualitative data are extensive and detailed, giving us a clear picture of how educators in the Prefecture of Larisa see the advantages and disadvantages of using Artificial Intelligence in school administration.

#### *Sample*

The research sample consists of primary school principals who work in the Prefecture of Larisa. The total number of respondents is 6 participants, who were selected through purposive sampling to ensure diversity in terms of:

1. School environment (urban, semi-urban, rural)
2. Years of experience
3. Participation in administrative duties
4. Gender and age

This sample selection aims to capture a range of perspectives rather than statistical representation.

#### *Research tool*

The semi-structured interview allowed participants to discuss their ideas in depth while staying on topic, which helped them to have open and creative discussions. The interview questions were organized into thematic groups based on the objectives of the study and were as follows:

1. How do you perceive the concept of “Artificial Intelligence” within the context of school administration?
2. In what ways do you believe that Artificial Intelligence could contribute to facilitating educators’ work in administrative tasks?
3. What potential challenges do you identify in the use of Artificial Intelligence for school administration? Do you have any concerns?
4. How confident or prepared do you feel to use this type of technology?
5. What kind of training or support do you consider necessary prior to the implementation of Artificial Intelligence tools?
6. In your opinion, what ethical or legal issues may arise from the use of Artificial Intelligence in schools?
7. How do you envision the school of the future, should Artificial Intelligence become an integral part of everyday school administration?

The use of open-ended questions was selected, as they enable the development of a dialogic discussion with each respondent, allowing for the full presentation of their views and, consequently, the capture of their subjective perspective. This is something that closed-ended questions do not permit due to the fixed nature of possible responses. The design of the research instrument was based on a prior review of the relevant literature, through which points of interest were identified by examining recent related studies. These points were subsequently addressed through the formulated interview questions, a fact that enhances the validity of the present research instrument (Bengtsson, 2016). Prior to the main data collection, a pilot test of the interview protocol was conducted with one experienced principal (not part of the study sample). The purpose was to assess the clarity, comprehensibility, and appropriateness of the questions, as well as to estimate the interview duration. Feedback from this pilot phase led to refinements in the phrasing of certain questions and confirmed the overall suitability of the guide for eliciting in-depth responses on the research topic.

The other themes helped participants make Artificial Intelligence more useful for their work. Participants were asked about potential benefits, such as increased efficiency or accuracy in administration, as well as problems and concerns that would hinder its acceptance, such as lack of adequate training, the obligation to do more work or ethical concerns. Participants often showed hesitation about ethical and legal issues, such as data protection, transparency and accountability. Therefore, particular attention was paid to these.

Finally, in the interviews participants were asked to imagine how Artificial Intelligence would be used in school administration, how the technology would affect their work culture and how it would be transformed. These themes created a balanced and comprehensive framework that allowed participants to talk about the existing school environment and to think about what a school with Artificial Intelligence would look like in the future.

#### *Data collection procedure*

Before the data collection process began, access permissions to educational institutions were required. The researcher informed the Primary Education Directorate of the Prefecture of Larisa about the aim of the study and requested permission to speak with the school principals. This ensured that the research complied with ethical and transparency rules and showed respect for school administration. The approval indicated that the initiative was interested in being informed about what principals had to say, rather than judging their work, which strengthened trust and openness in the dialogue.

After authorization, the search for participants began. Participants were invited to take part via email and in person. The invitations stated the purpose of the research and that participants could choose whether or not to take part. Participants felt more comfortable sharing their views and experiences because of this personal approach. The sample included principals from urban, semi-urban and rural schools in order to obtain diverse perspectives.

Before each interview, the individual gave their informed consent. They knew everything about the purpose of the study, how they would participate and how the data would be handled. The consent process also stated that participants could withdraw from the research process at any time if they felt uncomfortable, without consequences. This ethical approach made the study transparent and protected participants' rights. The interviews were conducted between April 2025 and May 2025, either in person in a calm and friendly atmosphere in the classroom or online via Zoom, depending on participants' preferences and availability. During each interview, educators had 30 to 45 minutes to reflect on and discuss their experiences. The semi-structured format facilitated the monitoring of study themes while allowing a natural conversation.

To ensure analytical accuracy, all interviews were audio-recorded with participants' consent. Verbatim transcription of the audio preserved participants' tone and meaning. To protect confidentiality, all names and identifying information were replaced with pseudonyms. The researcher was the only person who could access the data because they were password-protected. This careful handling of the data kept the research confidential and honest.

#### *Data analysis*

Thematic analysis, a technique for identifying, examining, and interpreting patterns in qualitative data, will be used to analyze the data of the present study, as it provides a flexible yet systematic framework that allows for the identification of patterns of meaning, experiences, and viewpoints expressed by the participants. According to the model proposed by Braun and Clarke (2006), the process of thematic analysis is distinguished into six phases. In the first stage, "familiarization with the data" is undertaken, during which the recorded files resulting from the implementation of the semi-structured interviews were transcribed. The transcription texts were studied carefully to achieve an in-depth familiarity with their content and to perceive the general tone of the participants' narratives, allowing for an initial recording of ideas regarding possible points of interest.

Subsequently, the phase of "generating initial codes" was undertaken, during which selected excerpts considered significant in relation to the research questions of the study were identified and formalized into codes. These codes functioned as concise labels capturing the ideas and perspectives expressed by the participants. Following the coding process, the codes were grouped into "preliminary themes," aiming to identify broader categories of meaning that encompassed the identified codes. This was followed by the phase of "reviewing themes," during which the preliminary themes were systematically compared with the transcribed excerpts and the entire dataset to ensure internal coherence, validity of content, and sufficient supporting data for each theme. Subsequently, the phase of "defining and naming themes" was conducted, during which each theme was assigned a clear and concise title that accurately reflected its core meaning. In the final phase, "producing the final report," the finalized themes were integrated into the presentation of the study's results. In this narrative, each theme is presented in detail, outlining its central meaning and supported by representative excerpts from the interviews, thereby ensuring the substantiation of interpretations and conclusions. The organization of codes, themes, and excerpts was facilitated through the use of spreadsheet software (Microsoft Excel) in order to maximize transparency and systematic analysis.

#### *Ethical dilemmas*

Participation in this study was entirely voluntary and each participant had the freedom to withdraw at any time without any explanation or consequence. This method ensured that everyone felt safe and free to say what they really thought, knowing that they were there only because they wanted to be. The voluntary nature of participation was also consistent with the

ethical principles of qualitative research, which emphasize the importance of respecting people and their freedom of choice throughout the process.

In all cases, anonymity and confidentiality were strictly maintained. Names or other identifying information were not recorded in the final minutes or reports. Instead, each participant was given a pseudonym to keep their identity safe. The data collected did not include sensitive personal information, focusing exclusively on participants' professional perspectives and experiences regarding Artificial Intelligence in school administration. This meticulous attention to privacy shows that the researchers are committed to following the rules of the General Data Protection Regulation (GDPR) and conducting research in an ethical manner.

To keep the information secure, all recordings, transcripts and other related files were stored in encrypted, password-protected digital folders accessible only to the researcher. To protect participants' privacy, all raw data will be permanently deleted after completion of the research. Participants were also informed that they could request a summary of the study's findings once the research was completed. This final stage makes things more transparent and fair by allowing participants to see how their contribution helped shape the study's conclusions.

### **Results and thematic analysis**

#### *Benefits of utilizing AI in school administration*

Participants recognized that Artificial Intelligence can reduce bureaucratic effort and improve efficiency in effective school management. The main sub-themes were time saving, automation of repetitive tasks and better organization and communication.

"Mainly by reducing bureaucracy. We spend several hours drafting reports, for example... a job that could be done automatically!" (P1)

"Report generation, organizing meetings, monitoring absences — all faster." (P3)

"Its supportive role could be like... a calendar... That is, to remind tasks, manage communication with parents, schedule, and possibly analyze attendance patterns." (P2)

Participants viewed Artificial Intelligence as a potential future assistant, not as a replacement. They believed it could perform routine bureaucratic/administrative tasks such as drafting reports, entering data and drawing up timetables. They also linked this efficiency to higher quality teaching, as it would save time for pedagogical engagement.

#### *Challenges and obstacles*

Although they are aware of the benefits, educators expressed various concerns regarding the utilization of Artificial Intelligence in school administration. The biggest problems were the lack of infrastructure, unreliable technology and fear of dependence on technology.

"The main challenge is reliability — what happens if the system crashes? And limited resources in rural areas." (P6)

"Lack of trust and fear of technology among older staff." (P4)

Participants talked about the possibility that differences in technology between urban and rural schools could create digital divides. They also expressed concerns about the potential problems Artificial Intelligence could cause and how difficult it would be to fix them.

#### *Need for digital training*

All respondents agreed that Artificial Intelligence technology should not be used until they have received systematic and practical training. Some participants stated that they felt very confident with technology (P3, P5), while others stated that they were not very confident (P2, P4, P6). But all participants emphasized how important institutional support is.

"I feel I have moderate knowledge. Yes, I do have some comfort with computers, but Artificial Intelligence is an entirely new field for me. I would need examples from everyday practice for guidance." (P1)

“I do not feel adequately prepared. I use technology on a daily basis, but not something as advanced as Artificial Intelligence.” (P2)

“I have less confidence. I would need time and support to adapt.” (P4)

“I’m not sure... our school does not have the appropriate equipment.” (P6)

Participants also emphasized the need for continuous technical support, especially from the local education authority or from designated technology coordinators. The importance of practical experience, as opposed to academic lectures, was highlighted as the most effective approach.

#### *Ethical and legal concerns*

Participants were concerned about privacy, security of personal information, openness and accountability. Some of the participants spoke directly about the General Data Protection Regulation (GDPR) framework, while others spoke about “confidentiality” or “control of information”.

“If Artificial Intelligence makes a mistake, who is responsible? That is my biggest concern.” (P4)

“Transparency. How can we know exactly how algorithms process information? That is the biggest concern I have...” (P5)

Because of these responses, there may be an underlying conflict between enthusiasm for new ideas and fear of loss of control and uncertainty about ethical issues. Those who took part stated that they wanted clear national or institutional rules that would define how data are handled and how people are held accountable.

#### *The vision of the school of the future*

Most participants who were asked to imagine a future where Artificial Intelligence (AI) would be used in school administration envisioned a balanced and human-centred model. In this model, technology would assist educators in the classroom rather than take their place.

“An ‘intelligent’ school, where technology simplifies daily tasks but people remain at the centre and dominate. Technology does not swallow us up...” (P5)

“A school where technology quietly helps in the background, allowing teachers to focus on students.” (P6)

This approach suggests a nuanced understanding: the interviewees did not show either clear enthusiasm or aversion towards technological progress related to artificial intelligence. They believed that AI can be a useful partner that would, in the long run, allow them to devote more time to creative teaching and communication with students and parents, provided that there are ethical safeguards and professional independence.

## **Discussion**

### *Alignment with Technology Acceptance Models (TAM & UTAUT)*

One of the key findings of this research was that most educators believed that Artificial Intelligence can be valuable for the operation of a school, especially because it could reduce bureaucracy, save time and make routine tasks more accurate (Davis, 1989). This is similar to Davis’ Technology Acceptance Model (TAM), which states that perceived usefulness is a significant reason why people adopt new technology such as artificial intelligence. Participants such as P1 and P3 stated that Artificial Intelligence could “generate reports automatically” or “make everyday operations faster”. This shows that they believed it would be very useful in addressing real administrative difficulties (Venkatesh et al., 2003; Mandal & Mete, 2023).

The second important part of TAM is how easy it is to use. Participants’ concerns about feeling unprepared or inadequately trained showed this. Participants repeatedly emphasized how important it was to have practical training, clear guidelines and ongoing support. These needs are quite similar to what TAM says: people are more likely to use new technologies when they feel confident that they can use them. (Mailizar, Almanthari & Maulina, 2021).

The findings show a strong correlation with UTAUT. Participants emphasized how important it is to make things easier for schools, such as stable Internet access, adequate equipment and support from the Education Directorate. For example, P2 and P6 stated that Artificial Intelligence would be “theoretical” and difficult to use in rural areas without the appropriate infrastructure. This supports UTAUT’s claim that environmental and organizational factors have a major impact on how people use technology. Social influence also played a small role: educators wanted clear instructions from the Ministry and wanted to know what their colleagues expected of them. This shows how expectations and norms influence people’s intentions (Neofotistos & Karavakou, 2018).

#### *Connection with the Theory of Diffusion of Innovations*

The results are also quite similar to Rogers’ Theory of Diffusion of Innovations, which focuses on the importance of perceived benefits, compatibility, complexity, trialability and observability. The idea of relative advantage is evident in how educators often talk about Artificial Intelligence as useful, time-saving and efficient. On the other hand, problems with transparency, errors and human control show that people still believe that technology is complex and not fully compatible with how they experience their everyday lives (Rogers, 2003).

Participants such as P5 argue that teachers should first “experiment in a safe environment”. This is linked to trialability, which is the ability to test a new technology before fully adopting it (Selwyn, 2019). They also talked about observability and stated that they wanted to see real-life examples of successful use of Artificial Intelligence in Greek schools. The presence of these data supports Rogers’ (2003) claim that adoption rates increase when users can observe tangible benefits and assess alignment with their needs.

The results show that school principals in Greece believe that Artificial Intelligence (AI) could be effective in basic education, but the technology is still in its early stages. Schools will only be able to adopt it if they can demonstrate real improvements and address ethical issues (OECD, 2021).

#### *Ethical and legal approaches*

The research highlights important ethical challenges associated with the integration of artificial intelligence into educational settings, particularly in terms of privacy, data security and algorithmic transparency. The findings of this study offer many elements that confirm these concerns. Participants were very aware of how sensitive student information is and therefore repeatedly asked how Artificial Intelligence systems handle, store and protect the data.

Research conducted by UNESCO (2021) and the European Commission (2019) emphasizes the importance of Artificial Intelligence in schools that adheres strictly to ethical criteria, particularly with regard to compliance with the General Data Protection Regulation (GDPR, 2016). Participants’ reflections indicate that they are cautious and even reserved. They were concerned about who would be responsible if AI makes mistakes, how data would be maintained and whether algorithms would operate in a fair and transparent way. These issues are in line with current debates in education about whether algorithms should be accountable and whether humans should remain responsible (Williamson & Eynon, 2020).

The results also show a desire to keep the education system human-centred. Educators spoke extensively about how important it is to maintain control, ensure that human judgment continues to play a significant role and prevent artificial intelligence from obstructing human interactions. This is consistent with ethical frameworks that emphasize human dignity, the autonomy of educators and non-mechanized decision-making in environments that foster learning (Gocen & Aydemir, 2020; Williamson & Eynon, 2020).

#### *Teachers’ professional identity and human-centred practice*

It is important to note that the results of this study provide a significant narrative concerning the emotional and professional aspects of administrative functions, even though the literature recognizes educators' concerns about automation. More specifically, a significant segment of the educational community appears cautious towards Artificial Intelligence, acknowledging their limited knowledge, the need for professional development, and the absence of clear planning for the use of Artificial Intelligence tools in approaching instructional content (Wang & Cheng, 2021).

At the same time, teachers were worried not only about learning a new tool, but also about the ways in which artificial intelligence could potentially change the culture and connections that exist in schools. This human-centred approach adds complexity to the current study, highlighting the fact that administrative tasks, even though they are routine, contribute to educators' sense of responsibility and connection with their school community (Selwyn, 2019).

The emphasis on maintaining "human contact", which was repeatedly highlighted across all interviews, provides evidence that educators perceive technology not only as a tool for increase efficiency but also as something that must be aligned with educational principles. A characteristic that is sometimes overlooked in studies focusing exclusively on policy or technology is demonstrated here, showing that professional identity plays a role in how educators evaluate innovations. This contributes to expanding the current body of literature (Gocen & Aydemir, 2020).

#### *Infrastructure, geographical inequalities and Socio-Demographic Variations*

The findings of the study are also relevant, as they demonstrate how the weaknesses of each region can have an impact. The literature agrees that infrastructure constitutes a significant obstacle. Nevertheless, the geographical inequalities within the Prefecture of Larisa- especially between urban and rural schools- highlight inequalities that directly affect readiness to utilize artificial intelligence. Principals working in remote areas emphasized that there are real constraints, such as unreliable internet and a lack of resources. This supports the notion that new technology cannot be separated from the ways in which it is used in real classroom settings (Mehdaoui, 2024).

This perspective is particularly relevant in the context of Greek education policy, which is characterized by established disparities in resources between schools. The present study underlines the need to consider both technological potential and regional equity in discussions about artificial intelligence. It achieves this by revealing the differences that exist in the specific context (Anastasopoulou et al., 2025).

At the same time, it is particularly noteworthy that a more positive attitude is observed mainly among participants with fewer years of professional experience, who appear to be better prepared for the utilization of Artificial Intelligence within the school environment. In contrast, educators with more than 15 years of professional experience reveal that they do not possess sufficient knowledge, acknowledging that they require time and appropriate support in order to become adequately prepared and expressing their hesitation. These findings reflect the limited technological proficiency of participants with many years of service—and presumably older age—compared to their younger and more highly trained colleagues, with familiarity with technology and adequate knowledge of technological tools being significantly associated with a positive attitude towards their use (Ofosu-Ampong, 2023).

#### *Limitations of the Study*

The main limitations of the present study include the small sample size (N = 6), which, in combination with the qualitative research approach, does not allow for statistical generalizations or the application of the findings to other contexts. In addition, the findings are geographically limited to the Prefecture of Larisa and therefore cannot be considered

representative of Greek primary education as a whole. Finally, the data are based on principals' self-reports, which may be influenced by subjective factors, while the possibility of socially desirable responses cannot be excluded. Despite these limitations, the study provides valuable preliminary insights and rich qualitative data that can inform future research.

### **Conclusions**

The aim of the present study was to investigate the perceptions of primary school principals in the Prefecture of Larisa regarding the integration of Artificial Intelligence into school administration, yielding a comprehensive and nuanced understanding of their views. The research participants described Artificial Intelligence as a promising tool capable of optimizing daily operations, alleviating bureaucratic burdens and enhancing the accuracy of administrative procedures. Their reflections showed that they all agreed that Artificial Intelligence could help free up time for teaching, communication with other people and support of students, which are the most important parts of educational practice. At the same time, they emphasized that for Artificial Intelligence to be truly beneficial, it must enhance rather than replace human judgment. These insights confirm the existing literature, affirming that technology acceptance is inextricably linked to perceptions of its usefulness, ease of use and alignment with professional values.

Although there was great enthusiasm for the potential benefits, the study showed that there are significant challenges and obstacles that must be addressed before Artificial Intelligence can be successfully used in Greek primary schools. Participants were very concerned about data protection, openness, ethical responsibility and the possibility of loss of human control over decisions. Many also mentioned practical problems that could hinder its adoption, especially in rural areas. These included inconsistent infrastructure, lack of training and questions about official guidelines. These findings are consistent with theoretical frameworks such as TAM, UTAUT and the Theory of Diffusion of Innovations, which highlight that technological acceptance is influenced by personal attitudes, organizational support, environmental factors and opportunities for safe experimentation. The concerns expressed by educators show that the simple introduction of new technologies is not enough for them to work. They must be implemented in a way that is careful, responsible and well supported, and that takes into account both ethical principles and the realities of school life. The findings of this study indicate that the effective integration of Artificial Intelligence into school administration will depend on the creation of appropriate conditions, including adequate infrastructure, accessible professional development, clear policies and strong ethical safeguards.

Principals are open to new ideas when they feel prepared, supported and confident that technology will help them do their jobs better rather than hinder them. This means that policymakers and school leaders must invest in plans that include training, protection of students' privacy and ensuring that all students have equal access in all school environments.

Although the study examined only a small number of individuals, it provides us with useful information that can help us make decisions at local and national level and guide future research. Artificial Intelligence could greatly improve school administration, but it will only work if it is used carefully and with a focus on students' well-being, the autonomy of principals and the importance of human relationships.

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