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### Evaluating School Administrators' Emotional Experiences in Artificial Intelligence-Supported Education

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**Abstract:** *In educational settings, artificial intelligence is the most important emerging technology to foster learning and teaching. While practicing artificial intelligence in educational environments, it is important to consider emotional experiences. For a deeper understanding' longitudinal studies are required. Emotional studies and their impact on education will evolve over time. The aim of this research is to examine, from a holistic perspective, the emotional experiences, perceptions, and evaluations of school administrators in AI-assisted educational environments. The research was conducted using a qualitative research approach; the study group consisted of 30 school administrators working in the Turkish Republic of Northern Cyprus. A semi-structured interview form was used and face to face interviews were done. The findings indicate that AI applications create a perceptual, emotional, and cultural adaptation process for administrators. It was determined that administrators initially experienced caution, uncertainty, and ethical concerns; however, these perceptions changed towards acceptance and adaptation through information sharing and experience. Ethics, confidentiality, and security emerged as primary areas of concern; and it was found that AI-assisted applications generally had positive effects on school culture, teamwork, and student motivation.*

**Keywords:** *AI-powered education; school administrators; emotional experiences; ethics; school management.*

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## 1. Introduction

Artificial intelligence (AI) is defined as a system capable of performing human-like learning, reasoning, and decision-making processes through algorithmic structures. Current approaches consider AI as a dynamic structure that perceives environmental data, processes this data to produce outputs, and adapts over time. One of the areas where this transformation is most clearly felt is education. In the contemporary context, where learning processes are individualised and teaching models are restructured with digital tools, AI is positioned as a pedagogical component. These systems, which play an active role in student monitoring, feedback generation, and performance evaluation processes, are considered digital guides that directly interact with teacher-student interaction (Keskin & Sevlı, 2024).

In the context of education, AI undertakes multifaceted functions such as adapting learning processes, personalising teaching activities, and automating evaluation mechanisms. Artificial intelligence-based learning analytics applications make it possible to predict potential learning problems in advance and strengthen the data-driven decision-making culture in educational management (Chen et al., 2020; Gürlek et al., 2023). In this process, artificial intelligence is considered not as a structure that sidelines the teacher, but as a complementary tool that supports pedagogical decisions.

The widespread adoption of AI-supported educational environments brings about significant transformations in the roles of teachers and students. Studies based on teacher opinions show that, in addition to facilitating teaching, these systems create new tensions in terms of perceived control, professional competence, and ethical concerns (Bayraktar et al., 2023; Ateş et al., 2025). While generative AI applications make learning processes more flexible and interactive, they also make feelings of uncertainty and insecurity a part of the educational experience (Yıldız, 2025).

Recent studies have shown that AI-assisted learning environments have significant effects on students' motivation, participation, and affective experiences (Koçak & Çakır, 2025; Shi et al., 2024). Emotional AI applications directly shape the learning experience through emotion recognition and feedback mechanisms (Zhang et al., 2025).

However, the current literature primarily focuses on teacher and student experiences, while addressing emotional processes at the administrative level only to a limited extent. Yet, educational administrators are among the key actors in planning, implementing, and managing the impact of AI-assisted applications on the institutional climate. They are decision makers to shape educational environments and make a bridge between ministries. Since most studies focus on teachers there is a lack of studies focusing on the importance of administrators' perspective on emotional dimensions. In this context, the research question is defined as, "What are the administrators' views on emotional experiences in AI-assisted education?" Under the light of the main research question, the following questions are aimed to be answered.

1. What are school administrators' perceptions of AI-supported educational applications, and what emotional experiences do they encounter throughout this process?
2. What ethical, privacy, and security concerns do school administrators experience regarding the use of artificial intelligence, and how do these concerns influence their administrative decision-making processes?
3. How do school administrators evaluate AI-supported educational applications in terms of school culture, teamwork, the transformation of teachers' and administrators' roles, and their impact on student motivation and academic achievement?
4. How do school administrators overcome the challenges encountered in the implementation of artificial intelligence applications, what types of support do they need during this process, and what are their views and recommendations regarding the future role of artificial intelligence in the education system?

## 2. The Need for the Study

Artificial intelligence (AI) is an interdisciplinary research field that aims to model the learning, reasoning, and decision-making processes unique to the human mind through computer systems. It aims to develop systems that can perceive and evaluate environmental stimuli and relate these evaluations to decision-making processes (Russell & Norvig, 2016). The theoretical foundation of AI is based on the algorithmic reconstruction of cognitive processes such as logical inference, information representation, and problem-solving (Ören et al., 2006).

With the development of learning-based algorithms, AI systems have transformed into adaptive structures capable of updating their behaviour based on experience. This feature distinguishes AI from systems limited by predefined commands and positions it as dynamically learning structures (Köse, 2017; Azginoğlu, 2022). These developments demonstrate that AI is not merely a technical field but an interdisciplinary phenomenon that must be addressed with its social, legal, and ethical dimensions (Maral, 2024). Studies related to AI in educational leadership and school administration shows that administrators play a vital role in education but studies related to emotional experiences are highly limited.

Technological advancements have led to artificial intelligence (AI) deepening human-machine interaction and creating significant impacts on social structures. This necessitates addressing AI from ethical, social, and psychological perspectives (Taşdelen, 2022). Human-centered approaches place principles such as privacy, transparency, accountability, and autonomy at the center of AI discussions (Küçükvardar et al., 2020).

The increasing role of autonomous systems in decision-making processes necessitates a reassessment of legal responsibility and ethical boundaries (Görgülü & Kesgin, 2021). However, algorithmic biases, data-based inequalities, and privacy violations stand out as risk areas for AI applications (Karabağ, 2021; Aydın, 2023). In this context, the principles of auditability and trust become fundamental determinants (Efe, 2021).

The relationship between artificial intelligence and education is shaped by the data-driven analysis of learning processes and the adaptation of instruction to individual differences (Ahmad et al., 2023). AI systems make learning behaviors traceable, offering early risk detection and objective evaluation opportunities (Ahmad, Alam et al., 2022). However, data security, algorithmic bias, and teachers' adaptation to technology are key factors determining the success of these applications (Chiu et al., 2023).

In the Turkish context, AI-supported educational applications are becoming increasingly widespread; personalised learning environments are coming to the forefront (Akdeniz & Özdiñç, 2021). However, it is emphasised that the ethical and managerial dimensions of its use in early age groups should be considered (Akgün & Greenhow, 2022).

Artificial intelligence applications in education are becoming widespread through personalised learning systems and generative AI tools (Huang et al., 2021). These applications redefine the teacher's role in terms of guidance and pedagogical decision-making (Joshi et al., 2021). However, academic integrity, data security, and pedagogical supervision are among the areas that need to be carefully managed (Demir, 2024; Foltynnek et al., 2023).

Explainable and human-centered AI approaches increase the trust that teachers and students have in the system and support the adoption of AI in education (Khosravi et al., 2022; Kaya & Köseoğlu, 2024). These approaches are really crucial for school administrators in order to enhance making decisions consciously, and also integrate ethical considerations, and AI within educational institutions.

## 3. Method

This research is structured within the framework of a qualitative research approach. Qualitative research is defined as research designs that aim to deeply examine individuals' experiences, perceptions, and meaning-making processes within their natural context. In this approach, the goal is not to reveal the relationships between measurable variables, but rather to

uncover the meanings participants attribute to their experiences and the contextual dimensions of these meanings (Baltacı, 2019). The subjective and contextually sensitive nature of the emotional experiences of school administrators in AI-assisted educational environments made the qualitative research approach suitable for this study. The research addresses the emotional experiences of school administrators regarding AI-assisted educational processes within a descriptive and interpretive framework (Yıldırım, 2010).

The research population consists of school administrators working in the Turkish Republic of Northern Cyprus. Due to the difficulty of reaching the entire population, purposive sampling methods were used. Purposive sampling is an approach that focuses on the conscious selection of participants who are most relevant to the research problem and rich in information (Baltacı, 2018).

The study group consisted of 30 school administrators working at the primary school level in the Turkish Republic of Northern Cyprus (TRNC). Ten participants were women and twenty were men. Age groups ranged from 40 to 55 years and over; administrative experience ranged from 10-20 years. Administrators working in primary schools were selected. Since data saturation is the primary criterion for determining sample size in qualitative research, rather than quantitative generalisation, data saturation was observed during the interviews (Başkale, 2016).

A semi-structured interview form was used as the data collection tool in the research. Semi-structured interviews are a flexible data collection technique that allows participants to express their experiences in detail, while proceeding within the framework of predetermined questions (Polat, 2022). The interview questions were prepared in line with the purpose and sub-purposes of the research; they were structured in a clear, understandable, and non-directive manner.

According to the research sub-questions, interview questions have been formed.

1. How do you evaluate the reactions toward artificial intelligence applications in your school?
2. What concerns have you experienced regarding ethics, privacy, or security in the use of artificial intelligence?
3. What kinds of support do you need to make AI-assisted applications more effective?
4. How do you think the roles of teachers and school administrators are changing with these technologies?
5. How do you motivate yourself and stay up to date with developments in artificial intelligence?
6. What are the effects of artificial intelligence use on school culture and teamwork within your school?
7. What has been the greatest challenge you have encountered in using artificial intelligence applications, and how did you overcome it?
8. How do you think artificial intelligence technologies will shape the future of the education system?
9. What changes have you observed in student achievement and motivation through AI-supported educational processes?
10. What are your recommendations regarding the effective use of artificial intelligence in education?

The data collection process was carried out through face-to-face interviews with school administrators. Interviews were conducted at the schools where the participants worked or in environments they deemed appropriate; the purpose of the research was explained to the participants before the interviews, and voluntary participation was the basis. Interviews were conducted with audio recording, with the consent of the participants. While the core questions were followed, additional explanatory and in-depth questions were also posed during the interview process (Yıldırım & Şimşek, 2008).

The qualitative data obtained from the research were analysed using content analysis. Content analysis aims to systematically examine the statements obtained from qualitative data sources, grouping together statements with similar meanings to create conceptual categories and themes (Alanka, 2024).

In the analysis process, the interview recordings were first transcribed, and the texts were read repeatedly to familiarise participants with the data. Then, meaningful statements were identified, and an open coding process was carried out. Sub-themes were formed by grouping similar codes; the relationships between sub-themes were examined to arrive at the main themes. The coding and theme-building process was carried out systematically; the findings were interpreted by directly supporting them with participant statements (Şahin & Kaya, 2020).

#### 4. Limitations and Further Directions

This study is limited to the views of 30 school administrators working in public primary schools located in the Turkish Republic of Northern Cyprus (TRNC). To ensure the confidentiality and anonymity of the participants and their institutions, the names of the schools are not disclosed. For future studies; the number of participants can be expanded.

The findings are limited to the perspectives of the participating school administrators and therefore cannot be generalised to all educational settings.

In addition, the study is limited by the use of a semi-structured interview form as the sole data collection instrument. Quantitative method can be integrated for further researches so that study become more supportive in both methodological analysis.

The relatively small sample size and the qualitative nature of the study may limit the transferability of the findings. Furthermore, participants' responses may have been influenced by social desirability bias, as they may have provided answers they considered professionally or socially appropriate.

#### 5. Findings and Interpretations

*Table 1. Findings regarding school administrators' reactions to artificial intelligence applications*

| Theme                             | Sub-theme                            | Codes                                                                  | Frequency |
|-----------------------------------|--------------------------------------|------------------------------------------------------------------------|-----------|
| Positive Attitudes Toward AI      | Perceived Educational Contribution   | Positive attitude, guidance role, individual support, collaboration    | 11        |
|                                   | Perceived Development and Innovation | Learning opportunity, professional development, openness to innovation | 8         |
| Initial Anxiety and Reservations  | Professional and Ethical Concerns    | Ethical sensitivity, role ambiguity, perceived professional threat     | 12        |
|                                   | Uncertainty and Resistance to Change | Uncertainty, resistance, maintaining routines                          | 10        |
| Adaptation and Acceptance Process | Information and Guidance             | Informing, orientation/introduction, guidance support                  | 9         |
|                                   | Trust and Acceptance                 | Transparency, trust-building, acceptance                               | 12        |

According to Table 1, school administrators' reactions to artificial intelligence applications are grouped into three main themes. The theme of "positive approach to artificial intelligence" shows that AI is seen as an element that provides educational contributions and professional development. However, in the initial stages of implementation, the themes of "professional and ethical concerns" and "uncertainty and resistance to change" stand out; cautious approaches are particularly noticeable regarding ethical boundaries, role ambiguity, and changes to established practices.

In the theme of "adaptation and acceptance process," the emphasis on information, guidance, and transparency appears to be an effective basis for the evolution of attitudes towards a more positive one.

*Table 2. Findings Regarding How School Administrators Motivate and Stay Up-to-Date with Developments in the Field of Artificial Intelligence.*

| Theme                                         | Sub-theme                          | Codes                                                          | Frequency |
|-----------------------------------------------|------------------------------------|----------------------------------------------------------------|-----------|
| Professionally Oriented Motivation            | Perception of Learning Opportunity | Professional development, viewing as an opportunity, curiosity | 19        |
|                                               | Gradual Learning                   | Small goals, step-by-step progress, sustainable learning       | 15        |
| Access to Information and Resource Monitoring | Educational and Academic Resources | Online training, academic publications, seminars               | 18        |
|                                               | Official and Institutional Sources | Policy documents, ministry announcements, official guidelines  | 14        |
| Social and Professional Interaction           | Peer Sharing                       | Experience sharing, best practices, collaborative learning     | 17        |
|                                               | Teacher Feedback                   | Teacher perspectives, field experience, practice evaluation    | 13        |

Table 2 findings show that managers' processes of staying up-to-date and being motivated are shaped around professional development, access to information, and professional interaction. "Perception of learning opportunity" and "following training/academic resources" stand out with high frequencies, while peer sharing and teacher feedback are also seen as elements supporting staying up-to-date.

*Table 3. School administrators' concerns regarding ethics, privacy, and trust in the use of artificial intelligence*

| Theme            | Sub-theme                      | Codes                                                                      | Frequency |
|------------------|--------------------------------|----------------------------------------------------------------------------|-----------|
| Ethical Concerns | Reduced Human Oversight        | Human control, automation of decisions, weakening of the teacher's role    | 18        |
|                  | Risks of Fairness and Labeling | Labeling, risk of discrimination, fixed judgments about students           | 14        |
| Privacy Concerns | Protection of Personal Data    | Data security, sharing of personal information, data storage               | 21        |
|                  | Lack of Transparency           | Insufficient information, unclear purpose of use, access-related questions | 16        |
| Trust Issues     | Trust in the System            | System errors, misinformation, cautious attitude toward technology         | 17        |
|                  | Stakeholder Trust              | Parental concerns, institutional trust, acceptance process                 | 12        |

According to Table 3, concerns are concentrated in three dimensions: privacy (particularly the protection of personal data), ethics (reduced human oversight and the risk of labeling), and trust (system errors/misdirection and stakeholder concerns, especially those of parents). The findings indicate a growing need for "maintaining human control" and "transparent information" in managerial decision-making processes.

*Table 4. Findings regarding the impact of AI-powered applications on teacher and administrator roles*

| Theme                                      | Sub-theme                           | Codes                                                                 | Frequency |
|--------------------------------------------|-------------------------------------|-----------------------------------------------------------------------|-----------|
| Transformation of the Teacher's Role       | Strengthening of the Guidance Role  | Guiding teacher, facilitative role, learning coaching                 | 15        |
|                                            | Personalised Learning               | Student-centeredness, individual needs analysis, flexible instruction | 9         |
| Transformation of the Administrator's Role | Process Management and Coordination | Process monitoring, digital coordination, implementation management   | 11        |
|                                            | Guidance and Support Role           | Teacher support, guidance, professional mentoring                     | 8         |
| Effects of Digital Transformation          | Need for Continuous Learning        | Continuous learning, competency development, adaptation process       | 10        |
|                                            | Strategic and Supervisory Role      | Strategic planning, quality monitoring, decision-making               | 6         |

Table 4 findings show that the teacher's role has strengthened towards guidance and learning coaching, while the administrator's role has expanded to include process monitoring, digital coordination, and teacher support.

Furthermore, the need for continuous learning is becoming more pronounced for both teachers and administrators with digital transformation.

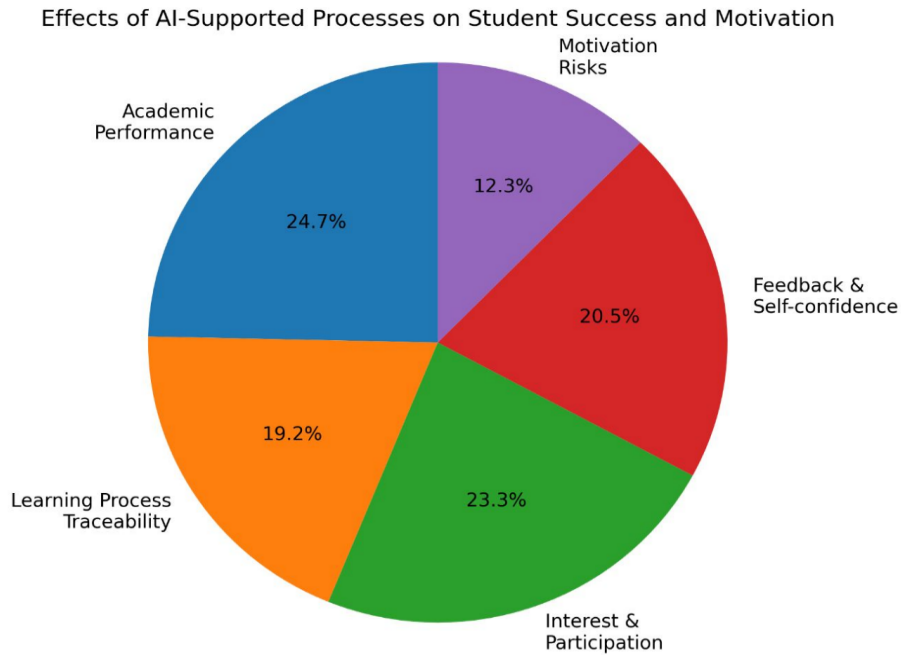


Figure 1. Findings regarding the effects of Artificial Intelligence Use on School Culture and Team Collaboration.

According to the chart in Figure 1, the use of artificial intelligence is associated with an innovative and development-oriented orientation in school culture, while information sharing and collaboration in team processes are significantly strengthened. However, the need to avoid excluding stakeholders who are hesitant about technology and to manage communication is emphasised.

Table 5. Findings Regarding the Effects of AI-Supported Processes on Student Success and Motivation

| Theme                          | Sub-theme                             | Codes                                                                    | Frequency |
|--------------------------------|---------------------------------------|--------------------------------------------------------------------------|-----------|
| Effects on Student Achievement | Supporting Academic Performance       | Academic progress, targeted intervention, individual support             | 18        |
|                                | Traceability of the Learning Process  | Identifying learning gaps, continuous monitoring, data-driven assessment | 14        |
| Effects on Student Motivation  | Interest and Participation in Lessons | Increased interest in lessons, active participation, interaction         | 17        |
|                                | Feedback and Self-Confidence          | Instant feedback, increased self-confidence, goal setting                | 15        |
| Limitations and Risks          | Sustainability of Motivation          | Risk of loss of interest, passivity, distancing from technology          | 9         |

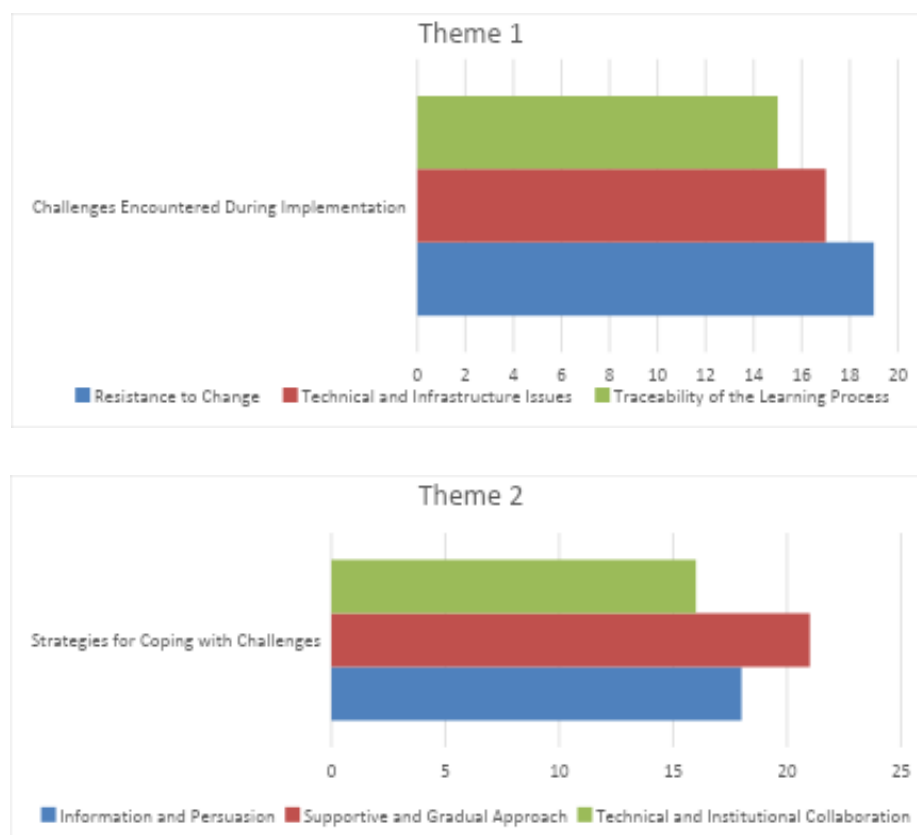
Table 5 findings show that AI-assisted processes generally support success and motivation; academic performance is strengthened by faster identification of individual shortcomings and easier targeted interventions.

In terms of motivation, interaction and immediate feedback stand out. However, risks such as loss of interest/passivity are noted in cases of uncontrolled use.

*Table 6. Findings Regarding the Support Needed for the Effective Use of AI-Powered Applications*

| Theme                                         | Sub-theme                           | Codes                                                           | Frequency |
|-----------------------------------------------|-------------------------------------|-----------------------------------------------------------------|-----------|
| Professional Development and Training Support | Need for In-Service Training        | In-service training, hands-on training, exemplar practices      | 22        |
|                                               | Administrator Competency            | Administrator training, level of knowledge, guidance role       | 17        |
| Technical and Infrastructure Support          | Need for Technical Support          | Technical support, rapid problem resolution, continuous support | 20        |
|                                               | Physical and Digital Infrastructure | Hardware, internet access, software updates                     | 18        |
| Institutional and Structural Support          | Lack of Guidance and Directives     | User guides, implementation guidelines, standards               | 16        |
|                                               | Ethical and Security Framework      | Ethical principles, safe use, data protection                   | 14        |

The findings indicate that the needs are most concentrated around in-service/practical training and technical support; however, there is also a strong expectation for infrastructure, user manuals/standards, and an ethical-security framework.



*Figure 2. Findings regarding challenges encountered in artificial intelligence applications and ways to overcome these challenges*

The findings indicate that challenges are primarily experienced along the lines of resistance, technical problems, and feelings of inadequacy/anxiety; while gradual progress, education and solidarity, and information/persuasion strategies stand out as key coping mechanisms.

*Table 7. Findings regarding the impact of artificial intelligence technologies on the future of the education system*

| Theme                                                         | Sub-theme                                            | Codes                                                                  | Frequency |
|---------------------------------------------------------------|------------------------------------------------------|------------------------------------------------------------------------|-----------|
| Artificial Intelligence in the Future of the Education System | Student-Centered and Flexible Learning               | Personalised learning, student-centeredness, flexible instruction      | 13        |
|                                                               | Transformation of the Teacher's Role                 | Teacher as a guide, facilitator role, process management               | 8         |
|                                                               | Data-Driven Decision Making                          | Data analysis, early intervention, monitoring and evaluation           | 6         |
|                                                               | Changes in Assessment and Evaluation Approaches      | Skills-based assessment, process-oriented evaluation, competency focus | 4         |
|                                                               | Equity of Opportunity and Risks                      | Access issues, risk of inequality, supportive use                      | 2         |
|                                                               | Strategic Transformation of the Administrator's Role | Strategic planning, long-term perspective, managerial transformation   | 11        |
|                                                               | Ethical and Human-Centered Approach                  | Ethical principles, human factor, responsible use                      | 9         |

The findings suggest that in the future, artificial intelligence will enhance individualised/flexible learning, the teacher's role will transform towards guidance and facilitation, and the manager's role will expand towards strategic planning and monitoring. While a transformation in data-driven decision-making and measurement/evaluation is foreseen, awareness regarding the risk of inequality/equality of opportunity is at a more limited level.

*Table 8. Findings regarding school administrators' recommendations for artificial intelligence applications*

| Theme                                    | Sub-theme                            | Codes                                                          | Frequency |
|------------------------------------------|--------------------------------------|----------------------------------------------------------------|-----------|
| Planning and Implementation Process      | Gradual and Planned Transition       | Phased implementation, readiness, pedagogical alignment        | 11        |
|                                          | Continuous Monitoring and Evaluation | Impact monitoring, feedback, continuous improvement            | 7         |
| Education and Human Resources            | Teacher Training                     | In-service training, hands-on learning, experience building    | 8         |
|                                          | Administrator Competency             | Administrator training, guidance role, decision-support skills | 6         |
| Ethics and Security                      | Ethical Principles and Guidelines    | Ethical framework, data security, fairness                     | 12        |
| Infrastructure and Institutional Support | Infrastructure and Equity            | Hardware, internet access, equality of opportunity             | 9         |

The recommendations focus on planned and phased transitions, continuous monitoring, teacher and administrator training, ethical guidelines, and infrastructure/equity. In particular, the ethical framework and data security stand out as priority requirements for administrators.

To conclude, the findings in Table 1 show that the frequency of positive perception is widespread; however, in the initial stages, anxiety becomes more pronounced due to ethical boundaries, role ambiguity, and resistance to change. According to the findings in Table 2, these results show that the process of staying up-to-date is supported by institutional and professional interaction as well as individual effort. According to the findings in Table 3, the highest frequency is observed in privacy (personal data); this strengthens the need for transparency, data security, and human control in managerial decision-making processes. According to the findings in Table 4, the teacher's role is transforming more towards guidance/coaching and supporting individualised learning. The manager's role, on the other hand, is expanding towards process management-coordination and teacher guidance; furthermore, digital transformation increases the need for continuous learning. The findings in Chart 1 show that artificial intelligence supports openness to innovation and development-orientedness in school culture; and strengthens

information sharing and collaboration within the team. However, the need for inclusive inclusion of stakeholders who are hesitant about technology and the increased need for communication are noteworthy. According to the findings in Table 5, AI-supported processes contribute positively to success through supporting academic performance and tracing learning; and to motivation through interest/participation in the lesson and instant feedback. However, in terms of sustainable motivation, the risk of loss of interest/passivity is emphasised when used independently of guidance. According to the findings in Table 6 the most basic needs are applied in-service training and technical support; Infrastructure, guidelines/standards, and ethical-security framework requirements follow. According to Table 8 findings, managers foresee that artificial intelligence will strengthen student-centered-flexible learning in the future; the teacher's role will transform towards guidance/control, and the manager's role towards strategic planning and monitoring. The emphasis on an ethical and human-centered approach is evident.

According to findings, suggestions are listed under the headings of planned-phased transition, continuous monitoring, teacher and manager training, ethical guidelines/data security, and infrastructure-equal opportunity. These recommendations indicate that the pedagogical alignment and trust framework needs to be clarified at the institutional level for the sustainability of the implementation.

## **6. Discussion and Conclusions**

This study indicates that school administrators generally perceive AI-assisted educational applications positively; however, ethical, privacy, and security-related concerns become particularly pronounced during the early stages of implementation. These findings align with the broader literature suggesting that while artificial intelligence offers significant opportunities for educational improvement, its integration also introduces complex ethical and governance challenges (Akgün & Greenhow, 2022; Foltynnek et al., 2023; Yeşilkaya, 2023). Administrators' initial caution reflects an awareness of potential risks associated with data use, algorithmic decision-making, and reduced human oversight.

The findings further demonstrate that artificial intelligence has the potential to enhance educational processes by strengthening teacher guidance, supporting individualised learning, and enabling data-driven administrative decision-making. Consistent with previous studies, AI-supported systems are viewed as tools that can assist educators and administrators rather than replace them, particularly when used to analyse learning processes and inform instructional or managerial decisions (Ahmad et al., 2023; Ahmad et al., 2022; Chen et al., 2020). Nevertheless, the sustainability of these benefits depends on maintaining human control over critical pedagogical and administrative judgments, as emphasised in research on explainable and ethical AI in education (Khosravi et al., 2022; Maral, 2024).

Another important outcome of this study is the observed transformation of teacher and administrator roles. Teachers are increasingly perceived as facilitators, guides, and learning coaches, while administrators assume roles centered on coordination, strategic planning, and process management. This shift is consistent with literature highlighting the evolving nature of educational leadership in AI-supported learning environments (Keskin & Seveli, 2024; Yıldız, 2025). At the institutional level, the findings suggest that openness to innovation and intra-team collaboration are strengthened, supporting the view that AI integration can contribute to a more development-oriented school culture when implemented thoughtfully (Gürlek et al., 2023; Akyel & Tur, 2024).

In terms of student outcomes, AI-assisted educational practices are perceived to have positive effects on both academic achievement and learning motivation. Enhanced monitoring of learning processes, timely feedback, and adaptive instructional support are seen as contributing factors to improved student engagement and performance, in line with prior empirical findings (Hashim et al., 2022; Shi et al., 2024). However, administrators also emphasise that uncontrolled or guidance-free use of AI technologies may undermine the sustainability of student motivation,

echoing concerns in the literature regarding over-automation and reduced pedagogical interaction (Demir, 2024; Alier et al., 2024). Therefore, administrators' decisions play an important role in monitoring the usage of AI in education and affecting the students' improvement directly.

## 7. Recommendations

Ethical considerations emerge as a central theme shaping administrators' perspectives. Concerns related to personal data protection, transparency, fairness, and accountability highlight the necessity of institutionally binding ethical frameworks and clear governance mechanisms (Canbay & Demircioğlu, 2021; Karabağ, 2021; Topakkaya & Eyibaş, 2019). These findings reinforce arguments that AI in education must be grounded in human-centered and ethically informed approaches to ensure trust among educators, students, and other stakeholders (Küçükvardar et al., 2020; Efe, 2021).

Based on the findings of this study, the following recommendations are proposed:

1. The integration of AI applications into schools should be conducted gradually and in a planned manner, taking into account the readiness levels of teachers and administrators to ensure pedagogical coherence and institutional sustainability (Akdeniz & Özdiñç, 2021; Çetin & Aktaş, 2021).
2. Practical and application-oriented in-service training programs should be expanded for both teachers and school administrators, with a focus on developing competencies related to AI-supported decision-making and instructional guidance (Bayraktar et al., 2023; Kaya & Köseoğlu, 2024).
3. Clear, transparent, auditable, and institutionally binding guidelines should be established to regulate ethical principles, data security, privacy, and responsible AI use in educational settings (Akgün & Greenhow, 2022; Foltyněk et al., 2023).
4. Infrastructure and access disparities between schools should be reduced through targeted investments, and technical support systems should be designed to ensure continuous and rapid intervention when problems arise (Dargut Güler, 2024; Gürlek et al., 2023).
5. The effects of AI-assisted educational applications on student achievement, motivation, and school climate should be continuously monitored and evaluated, and implementation strategies should be revised based on systematic feedback and evidence-based findings (Chiu et al., 2023; Zhang et al., 2025).

In conclusion, AI-assisted educational applications have the potential to make substantial contributions to the education system when implemented within a human-centered, ethical, and pedagogically grounded framework. The realization of this potential depends not only on technological advancement but also on responsible governance, ethical sensitivity, and alignment with educational values and goals. Further studies may use mixed-method or quantitative methods to contribute evidence-based results and suggest strategies for the literature. (Russell & Norvig, 2016; Keskin & Seveli, 2024).

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