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<https://kerjournal.com/>**Leadership Style as a Determining Factor in the Implementation of Educational Technology in Kindergartens**Lulzim Drini¹, Senad Orhani^{2*}, Mimoza Hoti Kolukaj³

Abstract: This study aims to explore the impact of a collaborative leadership style on the implementation of educational technology in public preschool institutions in Kosovo, with a particular focus on the “Zambaku” kindergarten in Prizren. The research relies on a qualitative approach, with the aim of understanding how the principal’s democratic and inclusive leadership influences the readiness and motivation of educators to use technology in the learning process. Through semi-structured interviews and observations in the institution's premises, the study aims to analyze the dynamics of communication, shared decision-making, and the support that the principal provides in the process of technological integration. The results show that the collaborative leadership style creates a positive institutional culture, where educators feel valued and encouraged to experiment with digital tools in a creative way. This study contributes to the literature on educational leadership and digital transformation in early childhood education, providing practical insights into how effective collaboration and communication between leaders and staff can foster successful and sustainable implementation of technology in public preschool institutions in Kosovo.

Keywords: Collaborative style, early education, educational leadership, educational technology, public kindergarten.

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1. Introduction

The integration of technology in early childhood education has become one of the most important challenges and opportunities for the institutional and professional development of educators. The role of the leader in this process is essential, as the way he leads, collaborates, and inspires staff directly affects the way technology is accepted and implemented in educational practice (Yakhshibayeva, 2025).

The nursery is the first educational institution with a direct impact on the social, emotional, cognitive, and motor development of early childhood. As part of the preschool education system, it prepares the foundations for lifelong learning, providing safe and stimulating environments for comprehensive development. Educators in the nursery play a key role in promoting basic communication, self-regulation, and cooperation skills in children (Yakhshibayeva, 2025). In addition to the educational aspect, the nursery also fulfills social functions, supporting families and the community in the early care and education of the child (Zbaida, 2025). This makes the preschool institution a fundamental center for the development of early competencies and for preparing children for successful inclusion in primary education.

The collaborative style, also known as democratic leadership, represents a form of leadership that values staff involvement in decision-making, open communication, and sharing of responsibility in institutional processes. In a kindergarten, the director with a collaborative style acts as a facilitator and guide, creating an atmosphere of trust and mutual respect between the staff and himself. This style encourages educators to share ideas, participate in pedagogical planning, and feel co-creators of educational processes (Fisher & Hackett, 2025). Research has shown that democratic leadership increases professional motivation and staff engagement, as employees feel heard and valued (Yakhshibayeva, 2025). In the context of integrating technology in kindergartens, this style plays a key role in creating an innovative culture, where educators are supported to experiment with digital tools without fear of failure (Mahmud, Alias, & Iskandar, 2025). Furthermore, collaborative leaders foster collective learning and continuous professional development, strengthening connections between team

members and transforming the institution into a learning community that embraces change and innovation (Adhitia, Fathinah, & Sari, 2025).

The integration of technology in kindergartens has become an important part of contemporary education, aiming to enrich the learning experience through visual, interactive, and personalized tools. The use of tablets, interactive projectors, and smart devices, as well as educational applications such as *ABC Mouse*, *Kahoot Kids*, or *ClassDojo*, gives children the opportunity to learn in a playful way and develop basic digital skills (Fisher & Hackett, 2025). For educators, technology serves as a planning and assessment tool, facilitating documentation of children's progress and communication with parents (Adhitia, Fathinah, & Sari, 2025). However, its use requires careful leadership and collaboration at the institutional level to ensure that technological tools are used in a pedagogically balanced way (Mahmud, Alias, & Iskandar, 2025). In this sense, kindergarten leaders have an important role in creating a culture of collaboration and innovation that supports the responsible use of technology in early education.

In preschool institutions, especially in public contexts such as the “Zambaku” kindergarten in Prizren, the collaborative leadership style represents an approach that encourages participation, open communication, and sharing of responsibilities between staff and leaders. This form of leadership is in line with contemporary trends in collaborative learning and collective professional development, which have shown positive results in building an institutional culture that supports innovation and continuous improvement (Fisher & Hackett, 2025).

Researchers emphasize that collaborative leadership creates a safe psychological environment, where educators feel valued and able to experiment with digital tools for personalized learning (Adhitia, Fathinah, & Sari, 2025). Furthermore, this style helps in the development of professional learning communities (PLCs), which are essential for the exchange of experiences and good practices (Zbaida, 2025).

Similarly, international studies have shown that leadership that promotes collaboration and effective communication is a key factor in the successful implementation of technological innovations in early childhood education (Mahmud, Alias, & Iskandar, 2025). Effective

technology integration depends not only on technical resources but also on how institutional leaders manage to create ecosystems of collaboration and shared learning (Rees, 2025).

This research aims to analyze the role of the principal's collaborative leadership style in the process of integrating educational technology in a public kindergarten in Prizren. The goal is to understand how the ways of cooperation, communication, and sharing of responsibility between the principal and educators affect the success, sustainability, and quality of the implementation of technology in the educational process. This study contributes to the literature on educational leadership in the Kosovar context, emphasizing the importance of a human, inclusive, and collaborative approach to institutional development.

1.1. Problem Identification

Digital transformation in early childhood education is becoming increasingly important, as technology is considered a tool for improving the quality of learning and developing 21st-century competencies. However, the effective integration of technology in preschool institutions continues to face numerous difficulties, ranging from a lack of equipment and training to staff attitudes and institutional leadership style (Fisher & Hackett, 2025).

In many public kindergartens, including those in Kosovo, leaders face the challenge of creating a collaborative culture where educators feel encouraged to use technology pedagogically and creatively. In cases where leadership is authoritarian or transactional, there is often a lack of motivation, limited communication, and resistance to change (Mahmud, Alias, & Iskandar, 2025). This indicates that the leadership style of the director can be a decisive factor in the success or failure of the implementation of educational technology.

In the "Zambaku" kindergarten in Prizren, as in many similar public institutions, the process of technology integration is gradually developing, but organizational challenges, lack of resources, and ongoing support hinder its sustainable implementation. Therefore, there is a need to research the impact of the collaborative leadership style on staff motivation and on creating a professional environment that supports the effective use of technological tools (Yakhshibayeva, 2025).

The identification of the problem lies in the mismatch between the need for technological transformation and traditional leadership practices. While leaders with a collaborative style can foster innovation, professional development, and sustainable use of technology, the lack of this approach can lead to its superficial, non-integrated, and unsustainable use (Adhitia, Fathinah, & Sari, 2025). Therefore, this study aims to qualitatively analyze how the director of the “Zambaku” kindergarten influences, through his collaborative style, the inclusion of technology in the educational process and the building of an innovative institutional culture.

1.2. Purpose of the Study

The main purpose of this research is to analyze the impact of collaborative leadership style on the effective implementation of educational technology in early childhood education institutions, with a particular emphasis on the public kindergarten “Zambaku” in Prizren, Republic of Kosovo. The research aims to understand how leaders who practice democratic and inclusive leadership influence the motivation of educators, the collaboration between staff, and the creation of an institutional culture that supports the sustainable and pedagogical use of technology in learning.

Through a qualitative approach, the study aims to explore the experiences, perceptions, and practices of the director and educational staff in the process of digital transformation. The research will analyze how collaborative leadership helps overcome challenges related to the lack of resources, training, and attitudes towards innovation. Through this analysis, the study will aim to provide practical recommendations for improving the leadership style and strengthening the digital capacities of staff in public preschool institutions.

Specifically, the research aims to:

1. Identify the perceptions of the staff of the “Zambaku” kindergarten about the director's leadership style.
2. Evaluate the role of collaborative leadership in promoting the use of technology in teaching practice.
3. Analyze the obstacles and opportunities that affect the integration of educational technology in kindergartens.

4. Propose strategies for developing a **collaborative and innovative culture** in public preschool institutions.

Through this goal, the study aims to contribute to the development of effective educational leadership models that support the digitalization process in early childhood education, providing valuable insights for practitioners and policymakers in the field of preschool education.

1.3. Research Objectives

This study aims to explore the impact of **collaborative leadership style** in the process of integrating **educational technology** in public preschool institutions, focusing on the case of the “Zambaku” kindergarten in Prizren. In line with the general purpose, the specific objectives of this research are:

1. **To identify** how the collaborative leadership style is perceived by the educators and staff of the "Zambaku" kindergarten.
2. **To analyze** the impact of the principal's leadership style on the process of implementing educational technology.
3. **Explore** collaboration, communication, and support practices that influence the effective use of technological tools.
4. **To identify** the challenges and opportunities that affect the process of digitalizing kindergarten teaching.
5. **To propose** a practical model for improving collaborative leadership and technology integration in early childhood education institutions in Kosovo.

1.4. Research Questions

Based on the above objectives, the research is guided by the following research questions:

1. How is the collaborative leadership style perceived by educators and staff at the "Zambaku" kindergarten?
2. How does the collaborative leadership style influence the process of implementing educational technology in kindergarten?

3. What are the concrete forms and practices of collaboration that support the use of technology in the learning process?
4. What are the obstacles and challenges that affect the effective implementation of technology in public preschool institutions?
5. How can the collaborative leadership style be improved to foster an innovative and digital culture in early childhood education in Kosovo?

2. Literature Review

The literature review aims to present the theoretical and empirical framework related to leadership styles in educational institutions and the implementation of technology in early childhood education, with particular emphasis on the role of the collaborative (democratic) leadership style. This chapter summarizes contemporary studies that help understand how leadership, collaboration, and organizational culture influence the effective inclusion of educational technology in public preschool institutions (Kingsly & Thavaraj, 2025).

2.1. The Concept of Leadership in Educational Institutions

Leadership in education is defined as the process by which leaders inspire, guide, and motivate staff to achieve institutional goals and promote professional development. According to Fisher and Hackett (2025), effective educational leadership involves building trusting relationships, open communication, and creating a culture of shared vision. This means that successful leaders do not simply manage, but lead by example and collaboration.

According to Miller et al. (2025), modern leaders must base their decisions on data analysis and practical evidence, using technology as a tool for strategic planning and collective reflection. In the context of early childhood education, the principal is responsible for creating a supportive institutional climate where educators feel safe to embrace change (Yakhshibayeva, 2025). A leader who demonstrates empathy, open communication, and a clear vision creates the conditions for sustainable professional development (Syarif, 2025).

2.2. Collaborative/Democratic Leadership Style

Collaborative leadership, also known as democratic leadership, is characterized by involving staff in the decision-making process, sharing responsibility, and valuing each member's contribution. Fisher and Hackett (2025) emphasize that this style fosters a sense of belonging and intrinsic motivation in employees, transforming the leader into a facilitator of professional development.

According to Cahyaningrum and Yulijantiningasih (2026), collaborative and transformational leadership are two approaches that help teachers develop pedagogical innovation and active involvement in the learning process. In early childhood education, this translates into ongoing support for educators who experiment with digital methods and tools.

Yakhshibayeva (2025) finds that collaborative leadership enhances motivation and creativity, while Adhitia, Fathinah, and Sari (2025) emphasize that open communication and shared leadership are key elements in creating contemporary learning environments. This style allows for the development of professional learning communities (PLCs), where sharing experiences and collective reflection form the basis for continuous improvement (Zbaida, 2025).

2.3. Collaborative Leadership and Organizational Culture

An important element related to collaborative leadership is the organizational culture it creates. According to Alasso, Ahmed, and Mohamud (2025), leaders who share power and involve staff in decision-making develop a culture that is flexible, innovative, and open to technology. A collaborative leadership in a daycare facilitates communication between educators, shares responsibility, and creates a sense of professional community.

This model is similar to that described by Dhamak, Kumar, and Daftardar (2025), who argue that collaboration between teachers, administrators, and the community creates an "innovation ecosystem" that facilitates the development of digital competencies and the inclusion of technology. In this sense, collaborative leadership is not only a leadership style but also a strategy for building a sustainable culture of innovation.

2.4. Educational Technology in Early Education

The integration of technology in preschool education is a transformative process that affects the way children learn and how educators interact with them. Mahmud, Alias, and Iskandar (2025) emphasize that technology enhances collaboration, creativity, and knowledge sharing, while Mahdavi-Zargari (2026) emphasizes the importance of developing teachers' digital skills to adapt to the needs of the time.

In kindergarten, the use of tablets, screens, and interactive and educational applications contributes to the development of cognitive and digital skills (Adhitia et al., 2025). But as Girardelli notes, Merrill Jr. and Ou (2025), the use of technology requires responsible and ethical leadership, which ensures a balance between educational benefits and early digital exposure. Therefore, educational leaders should create structures that support staff training and the sharing of good practices (Fisher & Hackett, 2025).

Also, the study by Orhani et al. (2022) showed very good beginnings in the study of a digital school to facilitate administrative tasks. Thus, the results of the study of teachers and class teachers were very satisfactory with the integration of the electronic diary to successfully complete the statistical tasks automatically calculated by the diary.

2.5. The Impact of Collaborative Style on the Integration of Educational Technology

The collaborative leadership style positively impacts the digital transformation of educational institutions. Leaders who apply this style create safe environments for experimentation, reducing the fear of failure and promoting the adoption of innovations (Yakhshibayeva, 2025).

Mahmud et al. (2025) emphasize that organizations that cultivate collaboration and knowledge sharing are more successful in improving the digital performance of staff. Meanwhile, Cahyaningrum and Yulijantiningasih (2026) show that collaborative leaders directly influence the creation of innovative learning environments, where technology is used as a pedagogical tool, not just a technical instrument.

In this way, the kindergarten director is not just an administrator, but a visionary leader and mentor who supports the professional development of educators and the sustainable integration of technology (Adhitia et al., 2025).

2.6. Chapter Summary

From the literature review, it is clear that the collaborative leadership style is a determining factor for the success of integrating educational technology in early childhood education institutions. This style promotes collaboration, motivation, and professional development of staff, creating a shared culture of innovation and reflection. As Fisher and Hackett (2025) and Yakhshibayeva (2025) emphasize, technology integration is more successful in institutions where democratic, inclusive, and visionary leadership prevails.

3. Methodology

This chapter presents the methodology used in the study "Leadership style as a determining factor in the implementation of educational technology in kindergarten, carried out in the public preschool institution "Zambaku" in Prizren, Kosovo. Through this chapter, the way in which the research was conducted is presented, including the research approach, design, participants, instruments, data collection and analysis procedures, as well as ethical aspects. The aim is to ensure that the study is trustworthy and valid in its educational context (Creswell & Poth, 2024).

3.1. Research Approach and Design

This research was conducted using a qualitative approach, which is more suitable for understanding the experiences, perceptions, and meanings that people give to phenomena. The qualitative approach focuses on the deep understanding of human experiences and social processes in their natural context (Creswell, 2023). In this case, the goal is to understand how the collaborative leadership style affects the implementation of educational technology in early childhood education institutions.

For this reason, the case study design was used, which allows the researcher to explore a specific case in depth to gain detailed knowledge about the phenomenon being studied (Yin,

2023). The public kindergarten “Zambaku” was chosen as a representative case, as it constitutes an institution that attempts to implement educational technology under the guidance of collaborative leadership. This method allows for the analysis of real management practices and technological innovation processes in a given educational environment.

3.2. Population and Selection of Participants

The population of this study consists of the educational staff and the director of the public kindergarten “Zambaku” in Prizren. The selection of participants was done using the purposive sampling method, as this type of selection is suitable for qualitative research that aims to include individuals who have direct experience with the phenomenon being studied (Palinkas et al., 2015).

A total of eight individuals participated in the study: the director of the kindergarten and seven educators with over five years of work experience. This group offers diverse perspectives that reflect how collaborative leadership and the use of technology in the early education process are perceived and implemented. Participants were selected because of their direct experience with institutional leadership and the inclusion of educational technology in children’s daily activities.

3.3. Data Collection Instruments

Two main instruments were used for data collection: semi-structured interviews and direct observation.

Semi-structured interviews

Interviews were conducted with the principal and educators to obtain detailed information on their experiences, attitudes, and perceptions. This method was chosen because it combines the structure of pre-prepared questions with the flexibility to follow the natural flow of the conversation (Kvale & Brinkmann, 2023). The main questions included topics such as:

- perception of management style by staff,
- ways to support the use of technology,
- challenges that arise during the implementation process, and

- forms of cooperation between educators and leaders.

Interviews are conducted with Google Forms through the distribution of online surveys with the consent of the participants and are transcribed verbatim for further analysis.

Direct observation

In addition to the interviews, observations were also conducted in the daycare facilities to observe how the director collaborates with the staff and how technological tools are used during activities with the children. The observations helped to supplement the data collected from the interviews and to triangulate sources to increase the reliability of the findings (Merriam & Tisdell, 2023).

3.4. Data Analysis

The collected data were analyzed through thematic analysis, a method developed by Braun and Clarke (2022), which focuses on identifying recurring patterns (themes) in the data. The analysis process involved several stages: first, all transcripts and observation notes were read several times to familiarize themselves with the content. Then, key ideas were identified, and recurring elements were coded. These codes were grouped into broader themes, such as "collaboration and communication", "staff motivation", "use of technology in practice", and "institutional challenges".

Finally, the themes were interpreted in relation to the research questions and objectives. To ensure credibility and validity, member checking and comparison between sources (triangulation) were used (Lincoln & Guba, 1985). This helped to base the conclusions on accurate and realistic perceptions of the participants.

3.5. Research Ethics

During the development of the study, the ethical principles of scientific research were respected. All participants were informed about the purpose of the research and gave their informed consent for participation. Confidentiality and anonymity were ensured, using codes instead of participant names and storing data securely for academic purposes only. No

participant was exposed to any physical or psychological harm. General ethical guidelines for social research were followed in accordance with the recommendations of Resnik (2020).

3.6. Study Limitations

Although this research provides valuable insight into how collaborative leadership style influences the use of technology in early childhood education, there are several limitations. The study focused on only one institution in the public kindergarten “Zambaku” in Prizren, which limits the possibility of generalizing the findings to other contexts. However, the depth of analysis and the real-world context make this research important for understanding the practical and human dynamics of leadership and innovation in preschool institutions.

3.7. Chapter Summary

In conclusion, this chapter has presented the methodology followed in this qualitative research, including the approach, design, selection of participants, instruments used, data analysis, and ethical aspects. Through the case study and thematic analysis method, the research aims to provide a deep understanding of the impact of collaborative leadership style on the implementation of educational technology in early childhood education institutions. This integrated approach allows the study to uncover effective practices, collaboration models, and real challenges, contributing to the development of contemporary leadership in education.

4. Results

4.1. Results from the Interview with the Director

This chapter presents the results of a semi-structured interview conducted with the director of the public kindergarten “Zambaku” in Prizren. The director involved in this study is a professional with extensive experience in the field of education, who has been working in educational institutions for more than 20 years. In the position of director of the public kindergarten "Zambaku" in Prizren, he has 3 years of managerial experience. He has completed his master’s degree in Educational Leadership and has attended several trainings on educational leadership and the use of educational technology at the institutional and municipal levels.

The director declares that he regularly uses technology for administrative purposes, communication with staff, and teaching support. He considers himself to have an intermediate to advanced level of digital competencies, and emphasizes that he has a continuous interest in the professional development of the staff and himself in the field of leadership and innovation. From the demographic data, it results that the director represents a typical profile of an active, collaborative, and continuous improvement-oriented leader, which is in line with the nature of the research topic and its objectives.

The analysis was based on the thematic analysis method to identify the main patterns related to leadership style, institutional collaboration, and implementation of educational technology. From the data obtained, five main themes were identified:

1. Collaborative leadership style;
2. Involving staff in decision-making;
3. Support for professional development and technology;
4. Challenges of integrating educational technology;
5. Long-term visions for the digital development of the institution.

From the interview, it is clear that the director of the "Zambaku" kindergarten identifies himself with a collaborative, inclusive, and developmental leadership style, which is based on principles of trust, respect, and professional dialogue. He emphasizes the importance of open communication, shared decision-making, and creating a positive work climate, where every educator feels heard and valued. This style is consistent with the theory of democratic leadership (Northouse, 2024), which emphasizes the importance of staff involvement and sharing of responsibilities to increase motivation and institutional performance. The director defines his approach as "oriented towards continuous development and quality improvement, placing the child at the center of every decision.

One of the strongest aspects that emerges from the interview is the practice of actively involving staff in planning and decision-making processes. The director mentions several concrete forms, such as:

- periodic staff meetings, where pedagogical and organizational issues are discussed;
- preliminary consultations before important decisions;

- working groups on specific issues;
- joint reflections after activities; and
- encouraging individual initiatives by educators.

This approach helps build a sense of institutional and professional co-responsibility, creating direct links between collaboration and the quality of educational work. These findings are consistent with studies by Fisher and Hackett (2025) and Zbaida (2025), which emphasize that staff involvement in planning is a key factor for sustainable innovation in education.

Another element that comes up strongly in the interview is the director's commitment to the professional development of staff, especially in the field of educational technology. The director mentions the regular participation of staff in trainings and workshops every 3–4 months, the promotion of peer learning, as well as the practical use of technology in daily activities. He emphasizes the importance of creating a "technology-positive climate, where educators do not see technology as a burden, but as a tool for enriching the learning process. This is consistent with contemporary literature (Mahmud, Alias & Iskandar, 2025; Girardelli et al., 2025), which highlights that managerial support and institutional climate are determinants in the successful acquisition of digital tools.

The interviews identified several key challenges that hinder the full integration of educational technology. Among the most important are:

- the different levels of digital skills of educators,
- lack of sufficient equipment and limited infrastructure,
- balancing between technology and traditional play,
- different attitudes of parents towards technology,
- lack of time for practical training.

However, the director demonstrates a reflective approach, emphasizing that “the use of technology should remain balanced and oriented towards the well-being of the child.” This reflects a conscious pedagogical approach, which is consistent with the principles of digital ethics in early childhood education (OECD, 2024).

The director describes a series of motivational strategies for educators, based on support, assessment, and professional flexibility. He emphasizes that educators are motivated to use technology through practical examples, public assessment of achievements, and mutual learning among colleagues. This model of non-binding motivation reinforces a sense of professional autonomy and institutional belonging, making the use of technology a natural part of teaching.

In strategic terms, the director has a long-term vision for the digitalization of the institution, which includes:

- increasing the digital competencies of staff,
- digitalization of administrative processes,
- involving parents in digital communication,
- sustainable investments in equipment.

This vision is related to the transformational leadership approach (Leithwood & Jantzi, 2023), which focuses on systematic quality improvement through professional development and innovation.



Figure 1. Thematic Analysis of the Director's Interview – 'Zambaku' Pre-school

The analysis of the interview with the director clearly shows that collaborative leadership plays a crucial role in the inclusion of educational technology in early childhood education institutions. The director of the "Zambaku" kindergarten sees himself as a visionary and supportive leader who places collaboration, respect, and professional development at the center of institutional practice. Through a comprehensive approach, he has managed to create a positive work culture, based on trust, communication, and continuous improvement. The results reinforce the contemporary literature (Cahyaningrum & Yulijantiningasih, 2026; Mahmud et al., 2025), which shows that leaders who build collaborative relationships and provide systematic support are more successful in incorporating technological innovations in pre-school education.

4.2. Results from Interviews with Educators

Seven educators from the public kindergarten "Zambaku" in Prizren participated in the interview. Their ages range from 25 to 53 years, with 5 to 10 years of work experience in pre-school education. All participants have university qualifications and have attended at least one training course on the use of educational technology. Six of them declare that they use

technology “often” in their daily work, while one “sometimes”. These data show a profile of young teachers, professionally prepared and motivated for digital development, which is in line with the goals of the study.

In all interviews, educators describe the principal as a leader with a collaborative, motivating, and visionary style. One of them states that “the principal leads the institution with a motivating, visionary style, creating a positive work climate, respect, and cooperation.” All emphasize that the principal encourages teamwork, values staff opinions, and fosters open communication in the institution. This result coincides with Northouse’s (2024) democratic leadership theory, according to which leaders who share power and support staff autonomy increase motivation and institutional performance.

Educators report that they are directly involved in the planning processes of activities and that the principal “organizes meetings, professional discussions and joint coordination”. One educator states that: “The principal actively involves us in the planning, taking our ideas into account; this makes us feel an important part of the process. These findings highlight that staff involvement is a key element of collaborative leadership and influences professional commitment and a sense of ownership of the decisions made.

All educators emphasize that open communication with the leader has a positive impact on motivation and professional development. One of them emphasizes: “Good communication with the director helps to achieve motivation, trust, and professional development. Another adds: “The director communicates well and supports the team, creates a sense of appreciation and trust. This effective communication is in line with the findings of Yakhshibayeva (2025), who emphasizes that leaders who build healthy communication relationships foster a stable climate of cooperation.

Educators report diversified use of technological tools, including computers, televisions, projectors, tablets, and audio-visual equipment. These tools are used to enrich the learning process for interactive and creative activities with children. One participant emphasizes: “Technology helps children to be more engaging and creative during learning”. However, two educators mention that the lack of sufficient equipment and difficulties in continuous training are obstacles that limit the effective use of technology.

Educators generally feel supported by the principal in the use of technology. According to them, the principal “provides support, assistance, and encouragement for the continued use of educational technology.” One educator adds: “The principal helps in providing equipment and provides training for more effective use.” This support is a key factor in the acquisition of technology and coincides with the studies of Mahmud, Alias & Iskandar (2025), which emphasize the importance of supportive leadership in the process of educational digitalization.

Several recurring challenges are mentioned in the interviews, such as:

- lack of modern equipment,
- poor internet connection,
- lack of continuous training,
- different levels of digital skills among staff.

One educator emphasizes: “The challenges are the lack of technical conditions, sometimes even fatigue from new programs.” However, all agree that the director carefully manages these difficulties through constant communication and support.

Educators emphasize sustained professional collaboration through discussions, sharing of ideas, and joint reflections. One states: “We collaborate through discussions, exchanging ideas, and sharing practical experiences.” This collaboration is indicative of the professional learning community (PLC) culture in the institution (Zbaida, 2025).

Finally, the educators propose that the principal should organize more professional training and provide modern technological equipment. According to one educator: “The principal can improve the use of technology by offering additional training and providing modern tools.” These suggestions reflect a reflective and developmental culture, where staff feel responsible for professional growth and institutional quality.



Figure 2. Thematic Analysis of Teachers' Interviews – 'Zambaku' Pre-school

The results of the interviews with the educators show that in the "Zambaku" kindergarten, a collaborative and open leadership style prevails, which positively affects motivation, cooperation, and integration of educational technology. The staff feels strong support from the director, which translates into the creation of a favorable climate for innovation and increased teaching quality.

Although there are technical challenges, will, cooperation, and a shared vision will remain pillars of success in the process of digital transformation of the institution.

5. Discussions

This chapter aims to analyze and interpret the research results in light of the existing literature, drawing connections between the collaborative leadership style and the integration of educational technology in the public kindergarten "Zambaku" in Prizren. The discussion

focuses on how leadership style influences motivation, collaboration, and the adoption of technological innovations in early childhood education institutions.

The results of this study show that the director of the “Zambaku” kindergarten exercises a collaborative and democratic leadership style, characterized by open communication, staff involvement in decision-making, and professional support. This approach is consistent with the findings of Fisher and Hackett (2025), who emphasize that collaborative leadership fosters a sense of belonging and improves the work climate through inclusion and mutual trust. In this institution, the director not only delegates responsibility but also creates a sense of community, where educators feel an active part of the decision-making processes. This supports the conclusion of Yakhshibayeva (2025), who argues that leadership based on collaboration increases the motivation and creativity of educational staff.

The findings show that educators at the “Zambaku” kindergarten are actively involved in the planning and development of educational activities. This reflects an institutional culture that supports horizontal collaboration between staff and management. As highlighted by Adhitia, Fathinah, and Sari (2025), shared decision-making is a key component of institutions that develop an “innovation ecosystem” based on shared reflection and experience sharing. Involving staff in planning increases the sense of ownership of work processes and improves the quality of educational technology implementation.

Effective communication between the director and staff is one of the fundamental pillars of the institution's success. Educators report that they feel motivated due to the director's open and supportive approach. This result is in line with Northouse's (2024) democratic leadership theory, which emphasizes that transparent communication and mutual respect increase institutional performance. Professional motivation is also linked to support for continuous training and the opportunity to share good practices among colleagues, reinforcing the concept of professional learning communities (Zbaida, 2025).

One of the main findings of this research is the direct link between collaborative leadership style and the adoption of educational technology. The principal of “Zambaku” kindergarten has created an institutional culture that sees technology as a tool for development, not as a challenge. This is consistent with the conclusions of Mahmud, Alias, and Iskandar (2025), who

emphasize that supportive leadership is a determining element for the effective digitalization of educational environments. Furthermore, the principal helps in providing resources and organizing training, enabling the creative use of tools such as projectors, tablets, and educational applications. This result coincides with the study of Girardelli, Merrill Jr., and Ou (2025), which emphasizes the importance of visionary leadership in the intentional use of educational technology.

Although the principal and educators show high commitment to the use of technology, the study highlights several recurring challenges, such as a lack of equipment, poor technological infrastructure, and differences in staff digital skills. These challenges are common in public early childhood education institutions, as confirmed by Alasso, Ahmed, and Mohamud (2025), who identify a lack of resources as a barrier to innovation. However, the principal of "Zambaku" kindergarten has shown the ability to manage these barriers through communication, training, and collaboration with the municipality, building institutional resilience in the face of constraints.

The research highlights that educators at "Zambaku" kindergarten develop sustainable professional collaboration through discussions, reflections, and the exchange of experiences. This model of professional learning community is essential for the adoption of technological innovations (Zbaida, 2025). The director acts as a facilitator who supports this collaboration by encouraging peer learning and sharing of successful practices. This approach reflects the principles of transformational leadership (Cahyaningrum & Yulijantiningasih, 2026) and is consistent with the goal of early childhood education to create environments open to change and innovation.

In conclusion, the findings of this study confirm that the collaborative leadership style is a determining factor in the successful implementation of educational technology in pre-school institutions. The director of the "Zambaku" kindergarten has built a sustainable culture of collaboration, motivation, and innovation, which is reflected in the engagement and professional development of the staff. This proves that democratic and people-oriented leadership is an effective strategy for the digital transformation of early childhood education in Kosovo, strengthening the connection between leadership, collaboration, and technological progress in education.

6. Conclusions

The results of this study clearly show that the collaborative leadership style is a key factor that directly influences the implementation of educational technology and the professional development of educational staff in early childhood education institutions. In the case of the public kindergarten "Zambaku" in Prizren, the director has built an institutional culture based on trust, mutual respect, and open communication, where educators feel supported and valued. This has created a positive and collaborative work environment, which fosters innovation, inclusion, and motivation for the use of technological tools in the learning process.

Leadership has emerged as an effective strategy for promoting institutional change and adopting contemporary teaching practices. The principal of "Zambaku" kindergarten has demonstrated a democratic and supportive approach, involving staff in planning, decision-making, and professional reflection. This has contributed to building a sense of belonging and collective responsibility among educators, as well as improving the quality of teaching activities. The results are consistent with contemporary literature linking democratic leadership to motivation, performance, and continuous professional development (Fisher & Hackett, 2025; Northouse, 2024).

An important aspect of the research is the impact of open communication and professional motivation on the use of educational technology. Educators report that communication with the principal and ongoing support significantly increase confidence and willingness to experiment with digital tools in teaching. In this context, the principal plays the role of a transformational leader, who is not limited to administration, but inspires staff towards continuous improvement and innovative use of technology.

The use of technology in kindergartens is perceived as a tool that helps children be more active, more curious, and more involved in the learning process. However, participants highlighted some challenges related to the lack of modern equipment, limited infrastructure, and different digital skills among staff. These obstacles are common in public institutions, but in the case of "Zambaku" kindergarten, the director has managed them effectively through collaboration, training, and practical support. This shows that a collaborative culture and

development-oriented leadership help overcome material constraints and strengthen institutional sustainability.

Another important finding is the role of collective professional development. Educators have described consistent practices of collaboration, reflection, and sharing of experiences with their colleagues. This collaboration helps to improve the quality of work and create a professional learning community, which constitutes one of the pillars of the development of modern pre-school education. Through this approach, staff share responsibilities, increase creativity, and collectively adopt technology as a natural part of teaching.

From these findings, it can be concluded that collaborative leadership is an effective model for the digital transformation of pre-school institutions. Leaders who communicate openly, involve staff in decision-making, and support professional development achieve better results in the inclusion of educational technology and in creating an innovative work culture. In addition to the impact at the institutional level, this leadership style also improves the professional well-being of staff, increasing motivation, trust, and a sense of belonging.

Based on the results of the study, it is recommended that the leaders of pre-school institutions continue to strengthen the culture of cooperation, organize regular training on educational technology, and provide adequate equipment for the development of digital activities. Also, educators should actively engage in the process of professional development and share good practices for the use of technology for pedagogical purposes. On the other hand, municipal bodies and educational institutions should invest in infrastructure, logistical support, and sustainable programs for the training of leaders and staff in the field of digital innovation.

In conclusion, this study proves that collaborative leadership represents a sustainable strategy for the institutional and digital development of early childhood education. The director of the "Zambaku" kindergarten school has built a good example of managerial practice that combines vision, communication, and professional support, showing that through collaborative leadership, even public institutions can achieve high results in the quality of education and the integration of educational technology.

6.1. Practical Implications of the Findings

The results of this study have several important implications for educational practice and institutional development policies:

- Kindergarten/Daycare leaders should promote open communication and a culture of collaboration to foster effective use of technology.
- Staff training should be continuous and integrated with daily practice.
- Sustainable investments in technological infrastructure and institutional support for professional development must be ensured.

These recommendations are consistent with international frameworks on digital ethics and innovation in early childhood education (OECD, 2024).

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