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New Trends of Online Communication in Education

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Abstract

Communication and collaboration skills are recognized as core competencies of the 21st century, alongside those related to information and communication technologies. This study examines new perspectives on the concept of online communication, highlighting both its advantages and disadvantages in educational settings. The primary objective of the research is to conduct a systematic analysis of educational studies from the past five years, focusing specifically on the investigation of online communication. The research directions that emerge from the analysis of studies on online communication at the level of the educational process are the following: exploring the challenges and strategies for improving online communication in teaching and learning activities; identifying online communication skills; exploring online communication from the perspective of partnership with the family; capturing the relationship between online communication and well-being; assessing preparation for online communication; measuring the effects of online learning on communication; implementing online interactive communication educational programs.

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1. Introduction

The COVID-19 pandemic had a significant impact on the educational system, accelerating the shift of the teaching process to the online environment. Although contemporary trends already support the technologization and development of digital skills for both teachers and students, the exclusive use of online platforms for education became essential during this period. Digital competence and access to a variety of digital technologies can enhance and transform the interaction between teachers and students (Johler, 2022). This rapid transition brought both challenges and opportunities to enhance communication and collaboration within the digital educational space. In this context, new technological trends in education have emerged and strengthened, including the use of interactive and collaborative applications that make learning more dynamic and engaging. Platforms such as Google Classroom, Microsoft Teams, and Zoom have become essential tools, supporting interaction between teachers and students while providing access to diverse educational resources. Additionally, applications like Kahoot!, Nearpod, and Padlet enable creative and interactive approaches to learning materials, encouraging active student engagement. A thorough understanding and effective use of these tools are essential for educators, allowing them to adapt traditional methods to a virtual environment and sustain students' attention and motivation. These platforms contribute to developing an inclusive and accessible educational environment, while also fostering the digital skills needed for the future.

Among the 21st-century skills, communication and collaboration are central competencies, alongside those related to information and communication technology (Redecker, 2017; van de Oudeweetering & Voogt, 2018). Online learning requires different skills compared to those in the classroom, ranging from new communication models to advanced time management skills (Bozarth et al., 2004).Recent educational research highlights the potential of online communication and collaboration (Johler, 2022). Developing students' communication and collaboration skills in a rapidly evolving digital world is not only essential but also a prerequisite for becoming socially active and contributing citizens. However, Kaufmann and Vallade (2021) found that there is a gap in conducting studies on students' preparedness for online communication and interaction.

The virtual world represents a new dimension increasingly embraced by contemporary individuals who rely extensively on mass communication tools (Rotaru, 2010). Over the past decade, the web has become a crucial space for social interactions. The internet, with its wide range of applications, constitutes the communicative fabric of our lives, encompassing work, personal and social relationships, information, entertainment, politics, and religion. Virtual reality is achieved through computer manipulation, which serves as the primary medium for engaging with a new type of message produced by these devices and the networks that connect them. Therefore, the educational process and communication between teachers and students acquire new meanings today as a result of the use of modern information technology.

The main objective of this study involves a systematic review of the most current research on online communication in education. The question underlying the systematic review in this study is the following: What are the main themes investigated in studies from the last five years regarding online communication in the educational process?

2. New perspectives on communication through the lens of information technology use

Communicative technology and virtual communication have redefined the process of communication (Rotaru, 2010). While individuals may avoid face-to-face dialogue, new communication technologies enable comprehensive messaging, facilitating more complex oral and visual interactions and promoting greater societal integration. The communication process is shaped by the technological means employed, the characteristics of both sender and receiver, their

cultural reference codes, the communication protocol, and ultimately, the purpose of the interaction. Media convergence and the emergence of new media have revealed multiple dimensions of communication.

Due to the explosion of information and communication technology, the possibilities for communication in the learning process have greatly expanded through online communication, both at an official and unofficial level (Zeleňáková et al., 2012). Virtual communication represents a novel type of relationship between individuals, distinct from traditional one-to-one message exchanges. Networks that interconnect multiple computers enable message transmission in formats such as one-to-many or many-to-many. Cyberspace, the virtual realm, has introduced two new informational systems previously unavailable to individuals: the virtual world and informational flows (Biocca & Levy, 1995). Virtual reality emerges as a multifaceted concept, featuring diverse interfaces that attempt to reconcile the tangible real world with an intangible, simulated existence. Social networks and video-sharing platforms like Facebook, MySpace, and YouTube provide virtual spaces where internet users can interact or exchange video content. These platforms have proven exceedingly popular among the majority of users. According to Bodalev (2011), virtual communication represents an interaction based on the use of a computer for remote communication between two or more people. Wireless communication has become a versatile platform for delivering various digitized products—music, games, images, news, and instant messaging—on-demand and with extensive reach. The electronic communication grid overlays all aspects of our activities, anywhere and anytime. The defining characteristic of wireless communication is not merely mobility but what Castells (2009, p. 6) describes as "perpetual connectivity." Studies indicate that the majority of mobile phone calls and messages are sent from home or school - locations where fixed telephone lines are typically also available.

From a pedagogical perspective, the communication process in the online environment represents an exchange of information between teachers and students during teaching-learning-assessment activities carried out with the help of information technology, aimed at achieving educational objectives.
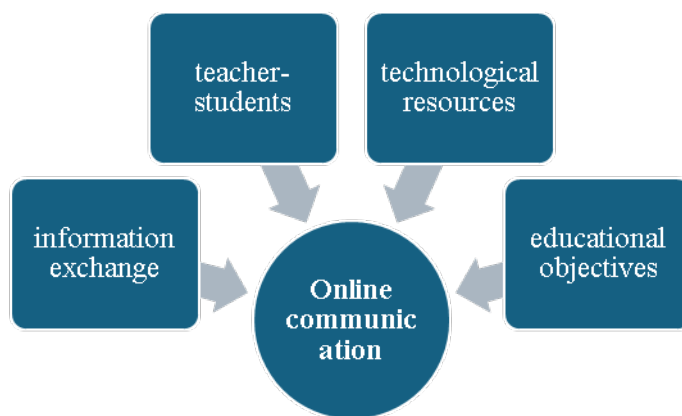

Figure 1. The pedagogical significance of the concept of online communication

Online communication tools enable the implementation of communication between teachers and students in two ways (Zeleňáková et al., 2012): non-interactive or asynchronous, without the possibility of immediate feedback (e.g., email, electronic journals, etc.); interactive or synchronous, with the possibility of immediate feedback (e.g., electronic conferencing, Skype, social networks such as Facebook, Twitter, etc.). The communication model in the online educational environment brings new meanings not only for students and teachers but also for parents, managers, and the entire community (Figure 2).
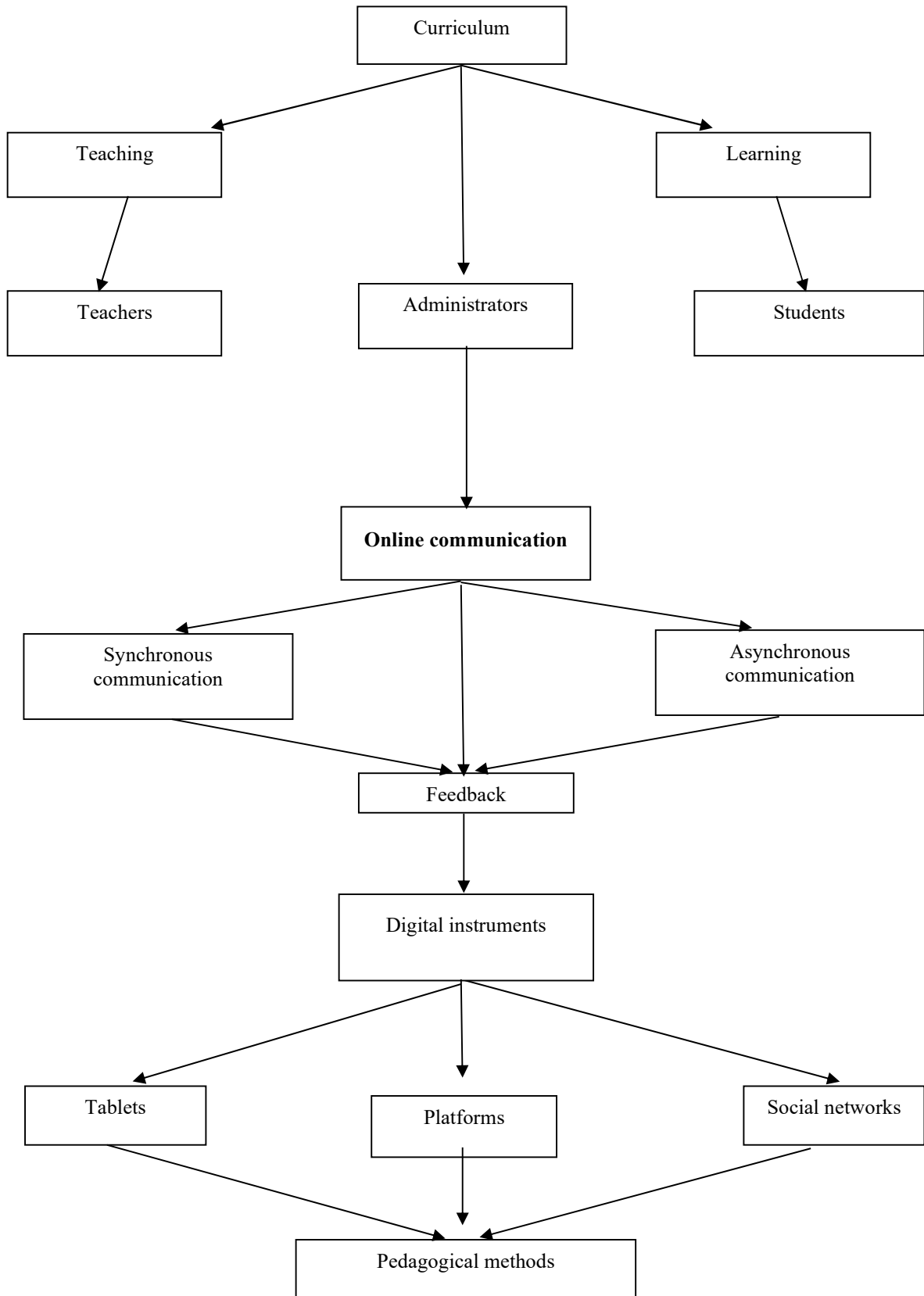
Figure 2. The innovative model of online communication in education

The content and frequency of messages play a critical role in facilitating effective online communication. Frequent updates regarding students' overall progress, including grades, attendance, and homework, are essential for maintaining informed engagement (Weinstein, 2005). Regarding message content, online communication relies on open and proactive dialogue with teachers about students' behavior and the challenges they face (Juniu, 2009). To ensure appropriate and consistent digital communication, it is recommended that schools establish a common agreement on the content and quality of online messages, outlining clear guidelines for informing parents (Kuusimäki et al., 2019). Another crucial condition for effective online communication is the training of teachers to develop online communication skills. According to Blikstad-Balas and Klette (2020), the rapid advancement of digital technologies and the growing expectations placed on teachers to facilitate technology-enhanced learning necessitate continuous professional development. Midtlund et al. (2021) emphasize the importance of teachers exploring the opportunities and benefits of using digital technologies for collaboration and communication, even when all students and teachers are gathered in the same physical space.

3. Advantages and disadvantages of online communication in educational environments

Digital communication offers many advantages over traditional forms of communication. One of the main advantages of online communication lies in facilitating the digital transmission of knowledge to bring together participants from different locations (Loode, 2021). The use of digital technologies in school learning boosts students' motivation and interest (Gouseti et al., 2020) and provides numerous opportunities to enhance communication and collaboration. This communication facilitates the timely exchange of information and immediate feedback between parents and teachers. It allows students to operate simultaneously in both physical and digital learning spaces, thus supporting blended learning, an approach that integrates many elements of digital technologies with more traditional face-to-face learning (Johler, 2022). Additionally, it supports early intervention in students' learning and behavioral issues, leading to improved academic outcomes (Carr et al., 2015).

Effective and frequent reciprocal communication supports a positive partnership between parents and teachers, as both receive information about what is happening at school and at home (Chu, 2018). Another advantage of digital communication is the encouragement of parents who live separately to participate in school activities, as both can access the digital platform (Palts & Kalmus, 2015), allowing parents and teachers to communicate at times that suit both parties. Other benefits include the easy storage of information and the ability to communicate simultaneously with the entire school community (Palts & Kalmus, 2015), as well as increased job satisfaction, motivation, and pedagogical atmosphere among teachers, ensuring continued support from parents in their daily work with students (De Pablos-Pons et al., 2012).

With the help of digital platforms, teachers can inform parents about school events, provide short or long written feedback on students' studies and grades, share information about schedules, and maintain diverse communication with parents (Kuusimäki et al., 2019a). Social media groups can be used to enhance communication between teachers and students and to engage students in the classroom (Cunha et al., 2016). In online communication, it is important that feedback be sensitive, with the aim of building mutual understanding and creating a positive learning environment that facilitates school adaptation (Reddy et al., 2003).

However, online communication also presents a set of disadvantages. It lacks clear rules, is time-consuming, and follows teachers from school to home, effectively blurring the boundaries between work and leisure time (Palts & Kalmus, 2015). The idea of being constantly available and accessible can seriously affect teachers' time management, work-related stress,

and, consequently, their overall well-being (Skaalvik & Skaalvik, 2011). At times, criticism from parents can cause anxiety and feelings of inadequacy among teachers (Skaalvik & Skaalvik, 2011). In this context, it is important for teachers to consider the appropriate way to contact parents, especially when discussing more sensitive issues. Technological competences vary based on age, education, income, and cultural background. Poor linguistic skills can create a barrier, leading to unequal communication opportunities. Schools should ensure that all parents understand the information they receive (Carr et al., 2015). Online communication also requires emotional and writing skills, given that misunderstandings are more likely to arise compared to face-to-face communication (Palts & Kalmus, 2015). Another disadvantage stems from the tendency to focus on digital products rather than on the process of communication and collaboration (Midtlund et al., 2021).

4. Current educational studies based on the investigation of online communication

According to Kuusimäki et al. (2019a), there is a lack of knowledge about the nature of digital communication between parents and teachers, as well as the specific needs of both parties. The authors developed a 14-item digital communication scale to assess the perception of parents and teachers regarding the school-family partnership, feedback, and message clarity. They adapted the three dimensions of online communication based on Epstein et al.'s model (2009): clarity and readability; informativeness, frequency, and effectiveness; and quality. The research findings highlighted parents' general satisfaction with digital communication, as it supports the parent-teacher partnership and provides valuable information about students' development and daily issues. In contrast to parents, teachers experienced more ambiguity in digital communication. In another study, Kuusimäki et al. (2019b) identified the perceptions of parents and teachers regarding how online communication contributes to teachers' well-being.

Ashe and Lopez (2020) conducted a transcendental phenomenological study to investigate teachers' experiences with technology-mediated communication from teacher to student in the virtual environment in secondary schools in Alabama. Semi-structured interviews were conducted with 12 teachers. Data analysis led to the identification of four key themes for understanding online communication: teacher mindset, teacher presence, integration of technology in instruction, and issues related to technology use.

McKnight (2020) examined the relationship between parents' use of an online parent-teacher communication portal and students' academic performance. The statistical analysis results indicated that there was no significant relationship between students' quarterly averages and parents' use of the online communication portal.

Kaufmann and Vallade (2021) investigated students' perceptions of preparedness for communication in the online classroom. Data analysis revealed potential uncertainties surrounding communication and interaction in the online educational environment, as well as challenges in creating authentic connections in the virtual space. Alawamleh, Al-Twait, and Al-Saht (2022) explored the effects of online learning on communication between teachers and students in the academic environment. The study results showed that students preferred in-person classes over online sessions due to several issues such as lack of motivation, difficulty understanding the material, decreased communication levels between students and teachers, and feelings of isolation caused by online courses.

Cîrțiță-Buzoianu et al. (2022) developed a scale to measure offline and online communication skills among students specializing in Educational Sciences, Philology, Communication Sciences, and Public Relations. The evaluation scale for online and offline communication skills included four main components: sociability, emotion decoding, self-disclosure, and assertiveness. Statistical data analysis revealed high scores in the components of sociability, assertiveness, and emotion detection in the online environment. Johler (2022) investigated the perceptions and practices of primary school teachers regarding computer-

assisted collaborative learning and communication in classrooms where students and teachers use digital technologies as a natural way to conduct daily teaching and learning activities. According to the data obtained from interviews with teachers, digitalization improved collaboration in classrooms and provided new ways of online communication. As students become familiar with new digital collaboration opportunities, they should be actively and systematically guided in developing communication skills in the online educational environment.

The study conducted by Pristanti et al. (2023) aimed to determine the effects of online learning on communication between lecturers and students. The results showed that most students preferred traditional classes over online sessions due to the issues they faced during online courses, such as lack of motivation and understanding of the material, as well as a decrease in the level of communication between students and lecturers.

The study initiated by Salarvand et al. (2023) aimed to identify the experiences of educators and students in the health field regarding the challenges of communication and cooperation in online classrooms during the COVID-19 period. Based on content analysis of the data, two major themes emerged: lack of student socialization and concerns about communication.

Elsayary et al. (2024) proposed the implementation of a professional development program for educators based on virtual communication. A mixed-methods methodological approach was used to collect quantitative data through an online survey and qualitative data through interviews. The research results demonstrated that the use of technology fostered positive attitudes and led to the continuation of professional development either during or after the pandemic period.

The objective of the study conducted by Ichikura et al. (2024) was to examine the effects of an interactive online communication educational program based on the use of video materials with health students, compared to a face-to-face educational program. The results indicated that the online communication educational program, using video materials and active exercises, was equally effective in improving students' confidence as the face-to-face educational program.

5. Research methodology

5.1. Method

Systematic review aims to obtain all the evidence to address a specific research topic and involves a thorough literature search and critical appraisal of eligible studies (Sriganesh et al., 2016). Conducting a systematic review begins with formulating a question and clearly identifying objectives, outcomes, and a well-established plan for recording and reporting the results. The analysis is based on a series of selection criteria, so that the articles obtained through the literature search are subjected to a screening and selection process, which takes place in two stages. The first stage includes the titles and abstracts to exclude articles that are not related to the research topic. In the second stage, all relevant studies are purchased in full to complete the eligibility verification process.

5.2. Research procedure

Articles from the past five years that focused on investigating the educational aspects of online communication were selected. The international databases used to identify the articles included Google Scholar, EBSCO, DOAJ, and ERIC.

6. Results

The research themes resulting from the content analysis of educational studies exploring online communication are presented in Table 1.

Table 1. Research themes in educational studies focused on investigating online communication

Author(s)	Research Studies	Research Methods
Kuusimäki et al. (2019a)	school-family partnership, feedback, and message clarity in digital communication	Digital communication scale
Kuusimäki et al. (2019b)	the relationship between online communication and teachers' well-being	open qualitative questions
Vlachopoulos și Makri (2019)	strategies for improving communication and interaction in online learning environments	literature review analysis
Ashe și Lopez (2020)	technology-mediated communication between teacher and students in the virtual environment	semi-structured interview
McKnight (2020)	the relationship between parents' use of an online communication portal and students' academic performance	quantitative nonexperimental cross-sectional study
Kaufmann& Vallade (2021)	preparedness for online communication	open-ended survey questions
Alawamleh, Al-Twait & Al-Saht (2022)	effects of online learning on communication between teachers and students	semi-structured online survey
Cîrtiță-Buzoianu et al. (2022)	students' online communication skills	scale for evaluating online and offline communication skills
Johler (2022)	communication through digital technologies as a means of conducting teaching and learning activities	interview
Pristanti et al. (2023)	effects of online learning on communication between lecturers and students	semi-structured online survey
Salarvand et al. (2023)	challenges of communication and collaboration in online classrooms	semi-structured interview
Ichikura et al. (2024)	educational program for interactive online communication based on the use of video materials	experiment

7. Discussions and conclusions

The rapid development and widespread adoption of digital technologies have significantly transformed communication in educational environments. The shift from traditional communication methods to digital communication has led to both challenges and opportunities in terms of how teachers, students, and parents interact. Several studies underscore the growing

importance of online communication in enhancing educational outcomes, but also highlight the need for careful implementation and management of digital tools to ensure their effectiveness.

One of the primary advantages of online communication in education is the ability to foster more frequent and timely exchanges of information between teachers and parents. As Kuusimäki et al. (2019a) and other studies suggest, digital communication enhances the parent-teacher partnership by providing regular updates on student progress, attendance, and behavior. This improves overall engagement and creates an environment in which both parties have access to real-time information, enabling them to address any issues or concerns promptly. Moreover, the integration of technology allows for flexible communication, especially benefiting parents who may not be able to attend in-person meetings due to geographic or time constraints (Palts & Kalmus, 2015).

Online tools allow teachers to offer targeted feedback to students and parents, facilitating a better understanding of students' academic performance and behavioral needs. The ability to track and record interactions also makes it easier to monitor student development over time, thus supporting early intervention strategies for students who may be struggling academically or behaviorally (Carr et al., 2015). Furthermore, online platforms have opened up opportunities for blended learning, where students can seamlessly interact with both physical and digital learning spaces, promoting a more flexible and engaging learning environment (Johler, 2022). However, the research also points to some significant challenges. Despite its advantages, online communication lacks clear rules and structures, which can lead to confusion or misunderstandings between teachers and parents. As highlighted by Kuusimäki et al. (2019) and Skaalvik & Skaalvik (2011), the lack of clear boundaries between work and personal life can cause stress among teachers, especially when communication extends beyond school hours. The expectation to always be available can disrupt work-life balance, potentially leading to burnout. Moreover, technological issues such as digital illiteracy, poor language skills, and access to technology can create barriers to effective communication, further exacerbating inequalities in education (Palts & Kalmus, 2015; Carr et al., 2015). Furthermore, while the digitalization of communication offers new avenues for collaboration and interaction, it requires teachers to possess not only technical skills but also emotional intelligence and effective written communication abilities. Misunderstandings are more likely in digital communication due to the lack of non-verbal cues, which are often present in face-to-face interactions (Palts & Kalmus, 2015). As such, it is essential to provide teachers with the necessary professional development and training to navigate these challenges effectively.

The analysis of studies on the topic of online communication in the educational process shows that there is very little research. The research directions that emerge from the analysis of studies on online communication at the level of the educational process are the following: exploring the challenges and strategies for improving online communication in teaching and learning activities (Ashe & Lopez, 2020; Johler, 2022; Salarvand et al., 2023; Vlachopoulos and Makri, 2019); identifying online communication skills (Cîrțiță-Buzoianu et al., 2022); investigating online communication from the perspective of partnership with the family (McKnight, 2020; Kuusimäki et al., 2019a); capturing the relationship between online communication and well-being (Kuusimäki et al., 2019b), assessing preparation for online communication (Kaufmann & Vallade, 2021), measuring the effects of online learning on communication (Alawamleh et al., 2022; Pristanti et al., 2023); implementing online interactive communication educational programs (Ichikura et al., 2024).

In conclusion, online communication has proven to be a powerful tool in modern education, fostering better collaboration between teachers, students, and parents. It facilitates timely feedback, enhances learning experiences, and allows for greater flexibility. However, to maximize its potential, it is crucial to address the challenges that come with its use, including managing workload boundaries, overcoming digital literacy gaps, and ensuring that communication remains clear and effective. As digital communication continues to evolve,

ongoing research and teacher development are essential to ensure its successful integration into educational practices.

References

Alawamleh, M., Al-Twait, L.M. and Al-Saht, G.R. (2022). The effect of online learning on communication between instructors and students during Covid-19 pandemic. *Asian Education and Development Studies*, *11*(2), 380-400. https://doi.org/10.1108/AEDS-06-2020-0131.

Ashe, S. J., & Lopez, R. M. (2020). Communication in Online Learning – How Important is It? *The Clearing House: A Journal of Educational Strategies, Issues and Ideas*, *94*(1), 15–30. https://doi.org/10.1080/00098655.2020.1835795.

Biocca, F., & Levy, M.R. (Eds.). (1995). *Communication in the Age of Virtual Reality* (1st ed.). Routledge. https://doi.org/10.4324/9781410603128.

Blikstad-Balas, M., & Klette, K. (2020). Still a long way to go: narrow and transmissive use of technology in the classroom. *Nordic Journal of Digital Literacy*, *15*, 55–68. doi: 10.18261/issn.1891-943x-2020-01-05.

Bodalev, A. A. (Ed.). (2011). *Psychology of communication. Encyclopedic dictionary*. Moscow: KogitoCentre.

Bozarth, J., Chapman, D.D., & LaMonica, L. (2004). Preparing for distance learning: Designing an online student orientation course. *Journal of Educational Technology & Society*, *7*(1), 87–106.

Carr, N., Heath, D., & Maghrabi, R. (2015). Implications of information and communication technologies (ICT) for school-home communication. *Journal of Information Technology Education: Research*, *14*, 363–396. doi: 10.2894/2285

Castells, M. (2009). *Communication power*. New York: Oxford University Press.

Cîrtiță-Buzoianu, C., Tzafilkou, K., Mâță, L., Amălăncei, B.-M. (2022). Evaluation of Online and Offline Communication Skills in Higher Education. *Sustainability* , *14*, 17039. https://doi.org/10.3390/su142417039.

Chu, S.-Y. (2018). Perspectives from both sides of the parent–professional partnership: a preliminary study on Taiwan's early childhood special education services. *International Journal of Disability, Development and Education*, *65*, 355–372. doi: 10.1080/1034912X.2017.1403572.

Cunha, F. R. da, van Kruistum, C., & van Oers, B. (2016). Teachers and Facebook: using online groups to improve students' communication and engagement in education. *Communication Teacher*, *30*(4), 228–241. https://doi.org/10.1080/17404622.2016.1219039.

De Pablos-Pons, J., Colás-Bravo, P., González-Ramírez, T., & Martínez-Vara del Rey, C. C. (2012). Teacher well-being and innovation with information and communication technologies; proposal for a structural model. *Quality & Quantity, 47*, 2755–2767. doi: 10.1007/s11135-012-9686-3.

Epstein J. L., Sanders M. G., Sheldon S. B. (2009). *School, Family, and Community Partnerships: Your Handbook for Action*, 3rd edition. Thousand Oaks, CA, USA: Corwin Press.

Gouseti, A., Abbott, D., Burden, K., & Jeffrey, S. (2020). Adopting the use of a legacy digital artefact in formal educational settings: opportunities and challenges. *Technology, Pedagogy and Education, 29*, 613–629. doi: 10.1080/1475939X.2020.1822435.

Ichikura, K., Watanabe, K., Moriya, R., Chiba, H., Inoue, A., Arai, Y., Shimazu, A., Fukase, Y., Tagaya, H., & Tsutsumi, A. (2024). Online vs. face-to-face interactive communication education using video materials among healthcare college students: a pilot non-randomized controlled study. *BMC Medical Education*, *24*, 746. https://doi.org/10.1186/s12909-024-05742-2

Johler, M. (2022). Collaboration and communication in blended learning environments. *Frontiers in Education, 7*, 980445. doi: 10.3389/feduc.2022.980445.

Juniu, S. (2009). Computer mediated parent-teacher communication. *Revista Electrónica "Actualidades Investigativas en Educación".* 9, 1–19.

Kaufmann, R., & Vallade, J. I. (2021). Online student perceptions of their communication preparedness. *E-Learning and Digital Media*, *18*(1), 86-104. https://doi.org/10.1177/2042753020950873.

Kuusimäki, A.-M., Uusitalo-Malmivaara, L, & Tirri, K. (2019a). Parents' and Teachers' Views on DigitalCommunication in Finland. *Education Research International*, 8236786, 7 pageshttps://doi.org/10.1155/2019/8236786.

Kuusimäki, A.-M., Uusitalo-Malmivaara, L., & Tirri, K. (2019b). The Role of Digital School-Home Communication in Teacher Well-Being. *Frontiers in Psychology*, *10*, 2257. doi: 10.3389/fpsyg.2019.02257.

McKnight, S.J. (2020). *Parent–Teacher Online Communication and Third- Through Fifth Grade Student Academic Achievement*. Dissertation work. Walden University.

Loode, A. (2021) *Virtual Meetings: Examining Presence on Group Communication Quality, Performance and Satisfaction in Communication Environments.* Master Thesis. University of Twente.

Midtlund, A., Instefjord, E. J., & Lazareva, A. (2021). Digital communication and collaboration in lower secondary school. *Nordic Journal of Digital Literacy*, *16*, 65-76.

Palts, K., & Kalmus, V. (2015). Digital channels in teacher-parent communication: the case of Estonia. *Int. J. Educ. Dev. Inform. Commun. Technol.* 11, 65–81.

Pristanti, H., Nurhasanah, S., Wulansari, K., & Andansari, D. (2023).The Effect of Online Learning on Communication between Lecturers and Students during Covid-19 Pandemic. In *Proceedings of the 3rd Borobudur International Symposium on Humanities and Social Science 2021* (pp. 818–823). Atlantis Press. https://doi.org/10.2991/978-2-494069-49-7_138.

Reddy, R., Rhodes, J. E., & Mulhall, P. (2003). The influence of teacher support on student adjustment in the middle school years: a latent growth curve study. *Dev. Psychopathol.* 15, 119–138. doi: 10.1017/S0954579403000075.

Redecker, C. (2017). *European Framework for the Digital Competence of Educators.* Luxembourg: European Commission.

Rotaru, I. (2010). *Comunicarea virtuală. Impactul noilor tehnologii informaţionale şi comunicaţionale în spaţiul educaţional contemporan* [Virtual communication. The impact of new information and communication technologies in the contemporary educational space]. Bucharest: Tritonic Publisher.

Salarvand, S., Mousavi, M.S., & Rahimi M. (2023). Communication and cooperation challenges in the online classroom in the COVID-19 era: a qualitative study. *BMC Medical Education*, 23(1), 201. doi: 10.1186/s12909-023-04189-1.

Skaalvik, E. M., & Skaalvik, S. (2011). Teacher job satisfaction and motivation to leave the teaching profession: Relations with school context, feeling of belonging, and emotional exhaustion. *Teaching and Teacher Education*, *27*, 1029-1038. doi: 10.1016/j.tate.2011.04.001.

Sriganesh, K., Shanthanna, H., & Busse, J.W. (2016). A brief overview of systematic reviews and meta-analyses. *Indian Journal of Anaesthesia*, *60*(9), 689-694. doi: 10.4103/0019-5049.190628.

van de Oudeweetering, K., & Voogt, J. (2018). Teachers' conceptualization and enactment of twenty-first century competences: exploring dimensions for new curricula. *The Curriculum Journal*, *29*, 116-133.

Vlachopoulos, D., & Makri, A. (2019). Online communication and interaction in distance higher education: A framework study of good practice. *International Review of Education*, 65(4), 605-632.

Weinstein, P. (2005). All in the family: new technologies, federal legislation, and persistent parents have spurred a vast array of products for school-to-home communication. *Technology and Learning,* 25(9), 7.

Zeleňáková, M., Pavolová, H., & Bakalár, T. (2012). Internet Communication in the Process of Education at Universities. *Procedia - Social and Behavioral Sciences*, *46*, 2711-2715, https://doi.org/10.1016/j.sbspro.2012.05.552.