TEACHERS' PERCEPTIONS OF COMMUNICATION INFLUENCING THE TEACHER-STUDENT RELATIONSHIP IN AN ONLINE ENVIRONMENT

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ABSTRACT

The research examined high school teachers' perceptions of communication with their students in a remote virtual school setting. The problem was that communication was impacted when teachers and students transitioned from a traditional school setting to a remote virtual setting. This qualitative case study aimed to see how communication influenced the relationship between teachers and students. This case study provides teachers' perspectives on communication with students when pivoting from traditional schooling to remote instruction. Participants were ten teachers within a school district in Middle Tennessee who participated in at least one school year in a remote virtual school setting and one year in a face-to-face traditional school setting. A semi-structured interview protocol using Zoom and Survey Monkey questionnaires were used to gather data to determine how out-of-class communication and technology tools affect interactions and communication between teachers and students. Qualitative data revealed that online communication and technology tools positively influence communication and the teacher-student relationship in a remote setting.

KEYWORDS

Distance Education, Online Communication Tools, Remote Learning, Virtual Learning

1. INTRODUCTION

Distance education became prevalent in high schools worldwide due to the COVID-19 pandemic (Sahbaz, 2020). The teaching and learning process was distorted worldwide (Sharda & Bajpai, 2021). Distance learning changed how high school teachers and students communicated (Sahbaz, 2020). Online education significantly impacted the relationship between teachers and students (Watson et al., 2017). The structure of each high school class changed, making interactions between instructors and students more difficult. Students also found it more challenging to interact with their classmates (Martinek et al., 2021). Communication still occurred between teachers and students, but it was not equal to contact in a traditional classroom (Sahbaz, 2020).

In a traditional setting, students had the opportunity to meet new friends, interact during lectures, and participate in fantastic group work and discussions (Snoussi & Radwan, 2020). Teachers are used to completing various daily tasks, managing their lesson plans, delivering instruction, meeting with other stakeholders, or grading work from students (Mukminin et al., 2019). Students were able to access materials in a library and use literature for their personal use and use in their classwork (Abashidze, 2020). Students and teachers periodically used information, communication technologies, and instructional technology in their everyday routines before the COVID-19 lockdowns (Navarro-Espinosa et al., 2021). Information and communication technologies include interactive digital whiteboards, tablets, smart pens, video conferencing, applications, learning management systems, augmented reality, 3D printing, and cloud computing

(Boyer-Davis, 2020). Instructional technology tools are adaptable and flexible for students and teachers (Navarro-Espinosa et al., 2021). Teachers' beliefs influence how they use these tools and implement educational initiatives in their classrooms (Mukminin et al., 2019).

The qualitative case study examined the influence communication has on high school teachers' perceptions of their relationships in a remote virtual school setting. Participants in the study included ten high school teachers who had taught in both the traditional face-to-face setting and the virtual setting for at least one year. The factors influencing out-of-class communication and how communication varies between online and onsite instruction were examined.

Teachers and students form educational relationships that impact the academic environment (Xu & Yang, 2019). A relationship between teachers and students is formed through interpersonal interactions. It affects a student's academic performance and social and emotional development. Interactions between teachers and students are complicated and involve several factors, including age, sex, family life, socioeconomic status, feelings, beliefs, and values. Ways to build relationships between teachers and students are different, and their relationship development depends on personal characteristics and demographics. Teacher-student relationships impact the outcomes of students (Xu & Yang, 2019).

2. COVID-19 AND VIRTUAL LEARNING

The COVID-19 pandemic created a crisis among educators, students, and education stakeholders due to worldwide school closures (Mărgăriţoiu, 2020). Most school districts had to find a way to adapt to the challenges that COVID-19 presented, and they continued to have classes through the pandemic (Mărgăriţoiu, 2020). School districts were unexpectedly forced to transition from meeting for class in-person to meeting in a remote virtual setting (Carrillo & Flores, 2020). Emergency remote learning and teaching took place that instructors were not prepared to deliver, and students were not ready to receive because they had never experienced anything like it (Hughes et al., 2020). It was challenging to implement remote learning due to the need for social isolation to help prevent the spread of the Coronavirus (Rusu, 2020). School systems worldwide had to determine whether they would require remote virtual instruction or make it optional for the students they serve since they were homebound (Hirsch et al., 2022).

Transitioning from meeting face-to-face in the traditional classroom setting to an emergency remote virtual setting brought many challenges for teachers and students (Carrillo & Flores, 2020). Teachers and students had to scramble to connect during uncertainty, and significant changes took place (Hughes et al., 2020). Challenges of emergency remote learning teachers and students experienced included inequities due to access, communication, motivation, engagement, preparedness, difficulties with emotional well-being, lack of structure, and complications in establishing relationships online (Murray et al., 2020). Teaching and learning may have also been impacted by health, wellness, safety, and the uncertainty about job security and the public health emergency (Hughes et al., 2020). Teachers had to learn to use different instructional technology tools to transmit information and communicate because technology is key to virtual education delivery (Cleland et al., 2020).

A significant challenge common among teachers and students involved in the remote learning process was digital inequalities (Richter & Naicker, 2021). Students may have had trouble accessing technology (Correia, 2020). Students who were minorities or experienced financial hardships had the most problems with connectivity, devices, and connecting with teachers during the pandemic (Katz et al., 2021). Instructors may not have been technologically prepared (Hughes et al., 2020). Teachers and students may have had issues with computer systems and timing. Students may not have felt teachers were supporting them and did not feel like their

teacher was present (Ashe & Lopez, 2021). Some individuals lacked reliable access to the internet, which was required to complete coursework and meet in the virtual setting. Some schools and libraries' solution was to loan out computers or provide free Wi-Fi drive-up areas where individuals could connect to the internet from their laptops or cellular devices (Hughes et al., 2020).

Although there were numerous challenges with remote learning during the COVID-19 pandemic, there were also positive elements for participants in remote education. Remote learning allowed flexibility in course format and delivery (Hughes et al., 2020). Students and teachers could also meet for a class anywhere if they had internet access (Katz et al., 2021). Students could adapt and flourish because online distance learning allowed them to fulfill their need for autonomy (Montano, 2021). Remote distance learning encourages students to accept advanced technology by creating a sense of community. It improves students' access to education by getting them more involved in the educational process (Rababeh et al., 2021).

The COVID-19 pandemic altered regular routines for individuals across the globe and in-person settings to virtual settings (Mouchantaf, 2020). Remote virtual learning existed before the COVID-19 pandemic but became prevalent in 2020 because schools worldwide shut down (Boyer-Davis, 2020). Individuals had to adapt quickly to new norms (Boyer-Davis, 2020). They had to transition from face-to-face classes to an online environment in a matter of days, depending on the decisions of school leadership (Pelikan et al., 2021). Businesses let their employees work remotely from home (Abuhassna et al., 2020). Social events, church services, concerts, sports, and other entertainment transitioned online through live streaming, social media platforms, and sometimes television (Abuhassna et al., 2020). Elementary schools, middle schools, high schools, and colleges transitioned from the traditional classroom to a remote virtual setting (Abuhassna et al., 2020). School districts had to make significant decisions on their return to school at the beginning of the 2020-2021 school year (Boyer-Davis, 2020). School districts had to decide if they would return to traditional full-time, hybrid, or full-time virtual settings (Boyer-Davis, 2020). School districts and stakeholders had to modify their schedules and reduce the number of participants in certain classes (Boyer-Davis, 2020). Academic calendars also had to be changed to minimize the coronavirus spread from people traveling on breaks (Boyer-Davis, 2020).

Students and teachers could meet using technology tools and online learning platforms (Abuhassna et al., 2020). Since teachers and students were meeting online, they suffered physically (Abashidze, 2020). Teachers and students were constrained in front of a computer screen and were not as active as in a traditional setting because they did not have to move (Abashidze, 2020). They also had other health issues, including eyesight, back pain, and depression, because multiple individuals spent ten hours or more in front of a computer (Abashidze, 2020). Students had trouble learning life skills in virtual learning (Abashidze, 2020). They had presentation issues when they received their education virtually (Abashidze, 2020). They could not make eye contact or receive instant feedback from other students because they were in remote locations (Rahim, 2020). Students in a virtual learning environment might feel like they are missing out on opportunities because they cannot practice real-life skills (Abashidze, 2020).

Distance learning is continually progressing (Bozkurt & Zawacki-Richter, 2021). Remote education gives learners a great mix of ways to obtain and absorb information. Educational technology is an element that can engage students and changes the way knowledge is delivered in a traditional setting. Educational technology has adapted from being used to supplement conventional education and transgressed into an essential part of distance education. Remote learning has expanded into an option for students worldwide because it has its curriculum and

strategies to reach and include various learners. Distance learning is omnipresent, flexible, and individualized; people work together to achieve a common goal through several interactions (Watson et al., 2017). Educational technology, instructional design, and the approach to distance learning have significantly influenced virtual remote learning and education today (Bozkurt & Zawacki-Richter, 2021).

3. LEARNING MANAGEMENT SYSTEMS

Learning management systems made distance learning possible during the COVID-19 pandemic. Learning management systems are digital tools that allow teachers and students to participate in the learning process at a distance (Ilieva & Yankova, 2020). Learning management systems aid students and teachers in the learning process by giving teachers a way to distribute information and allow students to receive and complete work. Learning management systems include lectures, individual assignments, group work, projects, discussion boards, examinations, grade books, and other resources. Learning management systems allow instructors to distribute information in sequential order and house content. Information instructors may upload in a learning management system environment, including videos, texts, presentations, and spreadsheets. Standard learning management systems include ATutor, Blackboard Learn, Claroline, Docebo, Moodle, and Sakai (Gladilina et al., 2020).

Learning management systems allow students and instructors to communicate (Gladilina et al., 2020). Students and teachers can share through electronic mail within the learning management system. They also allow users to communicate through instant messaging, forums, and comments. Learning management systems can be integrated with social networks (Gladilina et al., 2020). All participants in a learning management system can give feedback about their work (Rahim, 2020).

Distance learning takes on different forms of communication, including synchronous and asynchronous interactions (Jevsikova et al., 2021). Synchronous sessions are live. They allow students and teachers to interact using video and microphones in real-time. Instant feedback is the result of synchronous sessions (Rahim, 2020). Asynchronous sessions are pre-recorded by the teacher at their convenience and can be viewed at any time by students; this may be referred to as captured lectures (Witton, 2017). Asynchronous activities may also include discussion boards, e-mail, and other educational technology to advance students' knowledge.

Distance education requires different communication practices than traditional face-to-face classes (Bakare, 2018). Communication promotes teamwork and interrelationships There is a lack of interaction in the distance between students, instructors, and their peers, which leads students to disengage (Martinek et al., 2021). Various communication tools are used in remote learning, including applications, e-mails, tutorials, workshops, counseling, and audio-visual technologies. Communication occurs through mobile phones, laptops, and other electronic devices (Watts, 2016).

Communication combats feelings of isolation (Maliotaki, 2019). Interactions between instructors and students should begin early and often in virtual learning. Interactions between the two parties should extend beyond the virtual classroom. Instructors should constantly make their social presence known because students will feel like they have someone they can count on when they struggle in their personal lives or have issues trying to understand academic content. Interactions in a virtual setting are crucial to a successful learning experience (Maliotaki, 2019).

4. METHODS OF DISTANCE LEARNING

Distance learning can take place using several different methods (Snoussi & Radwan, 2020). There is a rotational model where students and teachers use a schedule to meet for specific courses. Students can also split up into small groups, consult with their teachers, and complete written tests in this model (Gladilina et al., 2020). The flexible model allows students to complete an individual learning plan and involves a teacher consultation or follow-up. Students complete assignments individually and study in their classes. The model of independent mixing requires a teacher to be remote when students are learning a discipline. Students can participate in this learning in the classroom and at home. The enriched virtual learning model combines traditional learning and distance learning. Students first learn about topics in the traditional classroom and complete assignments remotely. Students have access to the school's instructor and can consult remotely. When conventional learning is not used, distance learning increases the openness in an educational environment for individuals to learn and acquire skills and information. Telecommunication between teachers and students in distance learning helps students transfer knowledge and their learning development (Gladilina et al., 2020). Distance learning is critical for the future of education (Gonzalez-Ramirez et al., 2021). Remote virtual learning allows teachers and students in an organization to teach and learn flexibly and efficiently. Remote learning also allows teachers and students to communicate interactively, where all participants can exchange ideas (Rahim, 2020).

5. COMMUNICATION

Communication in remote virtual learning is vital. Transmission occurs when a sender has an idea, encodes a message, and uses a channel to transmit the message to the receiver to decode it. Communication lays the foundation for remote learning to be successful. Communication practices and tools allow connections between teachers and students (Bakare, 2018). When a connection is built intellectually and emotionally, students and teachers form a relationship on a deeper personal level. Students' relatedness with teachers, parents, and peers influences intrinsic motivation, academic motivation, engagement, and overall well-being (Fedesco et al., 2019).

Communication between teachers and students was a concern in the virtual setting. Without effective communication in the virtual scene, students will be negatively impacted, disrupting the success of those participating in the virtual environment (Ashe & Lopez, 2021). The lack of interaction and communication in an online environment can make participants in the virtual setting feel isolated and secluded from others (Sepulveda-Escobar & Morrison, 2020). Teachers and students who participated in emergency remote learning may have experienced feelings of being distant from one another. Communication methods between parties may have created feelings of a perceived distance. Transactional Distance is the concept of psychological and communication spaces present in an online environment that could explain the feelings of students and teachers (Charles & DeFabiis, 2021). Communication is critical in a virtual environment because students crave high-quality and meaningful interaction, which leads students to complete courses successfully. When communication is not present, and teachers do not contact or engage with students frequently, students do not make much progress in online courses (Ashe & Lopez, 2021). Communication tools have changed the dynamics of participants in the virtual setting allowing teachers and students to communicate instantly and be accessible to one another (Navarro-Espinosa et al., 2021).

Student-teacher relationships are valuable to teachers and students, and caring in education is viewed by others as a positive value and behavior (Murray et al., 2020). Teaching and learning are relational processes that lead to the development of constructive relationships (Kaufman,

2010). The ability of teachers and students to build and maintain a relationship is a central component of a meaningful educational experience. Interactions between teachers and students should be built on mutual respect, interdependence, and trust to develop an interpersonal connection (Carrillo & Flores, 2020). Teachers must adapt how connections and relationships are maintained when transitioning from a traditional face-to-face classroom to an online space (Murray et al., 2020).

6. CONCLUSION

Shifting from a traditional face-to-face setting to online learning is challenging for teachers and students. Teaching techniques and learning strategies may work in one location but not another. Teachers can use videoconferencing to meet with students in an online learning environment, but a teacher may not acknowledge independent learning needs. In an online virtual setting, teachers must attempt to clearly and consistently communicate with students, help students with technological needs, and engage students through various interactions. Learners transitioning from a traditional face-to-face environment to an online virtual setting may not feel like they belong or connect in a virtual setting. To be successful in an online environment, students must be intrinsically motivated, acquire the skills needed to use technology, and possess time-management skills. Students in a remote virtual setting must ensure a dependable internet connection and the supplies required to participate in their classes. Teachers need to be intent on communicating with their students through technology tools, getting to know them, and building a relationship with them.

Onsite communication and online communication differed. Communication, engagement, and participation significantly impacted whether a teacher-student relationship was formed in the remote setting. Educational technology tools, mobile technology, synchronous and asynchronous courses, hybrid classes, and other tools increase the accessibility and ease of receiving a quality education. A lack of participation caused teachers and students mental health issues and did not contribute to developing a relationship. Teachers experienced feelings of loneliness and isolation, along with feelings of doubt. Teachers in the remote setting struggled emotionally because of their inability to see their students in person and their lack of time around peers. When participation and engagement occurred between both parties, they were more likely to form a relationship. Technology, collaboration tools, email, and other tools in the digital environment helped with engagement and helped teachers and students get to know one another. Teachers and students had to be willing to form a relationship and relate to one another. When teachers and students communicated through technology tools when they were not in class, it helped improve the relationship between the two parties. There were minimal behavior issues present from students in the online environment. There were mixed emotions about teacher-student relationships and how they impacted teachers. Most teachers were discouraged or depressed at first since they had not formed relationships with students, but as time went on, they were able to establish a connection, making them happier with virtual teaching. One participant said, I definitely felt like I had better relationships with students who communicated with me out-of-class through e-mail and technology tools, like the Remind application. I was able to get to know those students and connect with them better (Luckeydoo, 2022). Communication contributed to the perception high school teachers had on their relationship with students in a remote virtual setting.

Table 1. Theme Identification

Research Question	Code	Theme
RQ: What were high school teachers' perceptions of communication as they pivoted from onside instruction to delivering instruction remotely?	Perceptions	Communication Technology Interactions Discipline Engagement

Distance learning may never replicate the traditional classroom, but student-centered teaching strategies with universal access and educational quality can lead students to success in a remote virtual setting. There is no definite component that influences the success or failure of virtual remote learning. Distance learning methods and tools will be strengthened and will continue to be integrated into education. Providing meaningful learning experiences and activities in a remote environment is critical and will help build the teacher-student relationship. Communication, teacher relatedness, connections, and technology contribute a successful teacher-student relationship in a remote setting.

REFERENCES

[1] [1] Abashidze, A. (2020). Education in the condition of "a total lockdown." *Quarterly Review of Distance Education*, *21*(3), 5-8.

[2] [2] Abuhassna Hassan, Al-Rahmi, W., Noraffandy, Y., Zakaria, M., Kosnin, A., & Darwish, M. (2020). Development of a new model on utilizing online learning platforms to improve students' academic achievements and satisfaction: Revista de universidad y sociedad del conocimiento. *International Journal of Educational Technology in Higher Education, 17*(1), 1-23. https://doi-org/10.1186/s41239-020-00216-z

[3] Ashe, S., & Lopez, R. (2021). Communication in online learning – How important is it? *Clearing House*, *94*(1), 15–30. https://doi-org/10.1080/00098655.2020.1835795

[4] Bakare, K. (2018). Effect of Communication Management on Distance Learners' Cognitive Engagement in Malaysian Institutions of Higher Learning. *International Review of Research in Open and Distributed Learning, 19*(4)

[5] Boyer-Davis, S. (2020). Technostress in higher education: An examination of faculty perceptions before and during the Covid-19 pandemic. *Journal of Business and Accounting, 13*(1), 42-58.

[6] [6] Bozkurt, A., & Zawacki-Richter, O. (2021). Trends and patterns in distance education (2014–2019): A synthesis of scholarly publications and a visualization of the intellectual landscape. *International Review of Research in Open and Distributed Learning, 22*(2), 19-45. http://doi-org /10.19173/irrodl.v22i2.5381

[7] Carrillo, C., & Flores, M. (2020). COVID-19 and teacher education: A literature review of online teaching and learning practices. *European Journal of Teacher Education*, *43*(4), 466–487. https://doi-org/10.1080/02619768.2020.1821184

[8] Charles, L., & DeFabiis, W. (2021). Closing the transactional distance in an online graduate course through the practice of embedded librarianship. *College & Research Libraries*, *82*(3), 370–388. https://doi-org/10.5860/crl.82.3.370

[9] Cleland, J., McKimm, J., Fuller, R., Taylor, D., Janczukowicz, J., & Gibbs, T. (2020). Adapting to the impact of COVID-19: Sharing stories, sharing practice. *Medical Teacher*, 42(7), 772–775. https://doi.org/10.1080/0142159X.2020.1757635

[10] Correia, A. (2020). Healing the Digital Divide During the COVID-19 Pandemic. *Quarterly Review of Distance Education*, 21(1), 13–21.

[11] Fedesco, H., Bonem, E., Wang, C., & Henares, R. (2019). Connections in the classroom: Separating the effects of instructor and peer relatedness in the basic needs satisfaction scale. *Motivation and Emotion, 43*(5), 758-770. https://doi.org/10.1007/s11031-019-09765-x

[12] Gladilina, I., Pankova, L., Sergeeva, S., Bulochnikova, N., & Baldin, S. (2020). Learning management system: Integration models of conventional and distance education of students. *EurAsian Journal of Biosciences*, 14(2), 6153–6159.

[13] Gonzalez-Ramirez, J., Mulqueen, K., Zealand, R., Silverstein, S., Reina, C., Bushell, S., & Ladda, S. (2021). Emergency online learning: College students' perceptions during the Covid-19 Crisis. *College Student Journal, 55*(1), 29–46.

[14] Hirsch, S., Bruhn, A., McDaniel, S., & Mathews, H. (2022). A survey of educators serving students with emotional and behavioral disorders during the Covid-19 pandemic. *Behavioral Disorders*, *47*(2), 95–107. https://doi-org/10.1177/01987429211016780

[15] Hughes, M., Henry, B., & Kushnick, M. (2020). Teaching during the pandemic? An opportunity to enhance curriculum. *Pedagogy in Health Promotion, 6*(4), 235–238. https://doi-org /10.1177/2373379920950179

[16] Ilieva, G., & Yankova, T. (2020). IoT in distance learning during the Covid-19 pandemic. *TEM Journal, 9*(4), 1669-1674. https://doi.org/10.18421/tem94-45

[17] Jevsikova, T., Stupurienė, G., Stumbrienė, D., Juškevičienė, A., & Dagienė, V. (2021). Acceptance of distance learning technologies by teachers: Determining factors and emergency state influence. *Informatica*, *32*(3), 517–542. https://doi.org/10.15388/21-INFOR459

[18] Katz, V., Jordan, A., & Ognyanova, K. (2021). Digital inequality, faculty communication, and remote learning experiences during the COVID-19 pandemic: A survey of U.S. undergraduates. *PLoS ONE*, *16*(2), 1–16. https://doi.org/10.1371/journal.pone.0246641

[19] Kaufman, P. (2010). The zero sum game of denigrating students. *Encounter, 23*(1), 38–45.

[20] Maliotaki, D. (2019). Let feedback make the connection: Battling isolation in distance learning - the case of the MEd in TESOL students of the hellenic open university. *Research Papers in Language Teaching and Learning, 10*(1), 188-209.

[21] Mărgăriţoiu, A. (2020). Reconfiguration and a new type of teacher student relationship in online education. *Jus et Civitas*, 2, 43–50.

[22] Montano, R. (2021). Academic engagement predicts flourishing among students in online learning setup: The mediating role of psychological needs. *Journal of Psychological & Educational Research*, *29*(1), 116–133. https://doi.org/10.3390/rs12050897

[23] Luckeydoo, W. (2022). The perceptions of high school teachers on their relationships with students in a remote virtual school setting (Publication No. 10996) [Doctoral dissertation, Trevecca Nazarene University]. *ProQuest Dissertations Publishing.*

[24] Martinek, D., Carmignola, M., Müller, F., Bieg, S., Thomas, A., Eckes, A., Großmann, N., Dittrich, A., & Wilde, M. (2021). How can students feel more vital amidst severe restrictions? Psychological needs satisfaction, motivational regulation and vitality of students during the Coronavirus pandemic restrictions. *European Journal of Investigation in Health, Psychology & Education (EJIHPE)*, *11*(2), 405–422. https://doi-org/10.3390/ejihpe11020030

[25] Mouchantaf, M. (2020). The COVID-19 pandemic: Challenges faced and lessons learned regarding distance learning in Lebanese higher education institutions. *Theory and Practice in Language Studies, 10*(10), 1259-1266. https://doi.org/10.17507/tpls.1010.11

[26] Mukminin, A., Habibi, A., Muhaimin, A., Haryanto, E., Setiono, P., & Sofyan. (2019). Vocational technical high school teachers' beliefs towards ICT for the 21st century education: Indonesian context. *Problems of Education in the 21st Century, 77*(1), 22-38. doi:http://doi-org /10.33225/pec/19.77.22

[27] Murray, C., Heinz, M., Munday, I., Keane, E., Flynn, N., Connolly, C., Hall, T., & MacRuairc, G. (2020). Reconceptualising relatedness in education in "distanced" times. *European Journal of Teacher Education*, *43*(4), 488–502. https://doi-org/10.1080/02619768.2020.1806820

[28] Navarro-Espinosa, J., Vaquero-Abellán, M., Perea-Moreno, A., Pedrós-Pérez, G., Aparicio-Martínez, P., & Martínez-Jiménez, M. (2021). The higher education sustainability before and during the COVID-19 pandemic: A Spanish and Ecuadorian case. *Sustainability, 13*(11), 6363. doi:http://doi-org/10.3390/su13116363

[29] Pelikan, E., Korlat, S., Reiter, J., Holzer, J., Mayerhofer, M., Schober, B., Spiel, C., Hamzallari, O., Uka, A., Chen, J., Välimäki, M., Puharić, Z., Anusionwu, K., Okocha, A., Zabrodskaja, A., Salmela-Aro, K., Käser, U., Schultze-Krumbholz, A., Wachs, S., & Friðriksson, F. (2021). Distance learning in higher education during COVID-19: The role of basic psychological needs and intrinsic motivation for persistence and procrastination–a multi-country study. *PLoS ONE*, *16*(10), 1–23. https://doi-org/10.1371/journal.pone.0257346

[30] Rababeh, S., Al Rabady, R., Rababeh, M., Muhsen, R., & Al-Bqour, N. (2021). Synchronous online distance learning applications in "history of architecture" and its impacts on students' skills for

acquiring knowledge during the Coronavirus pandemic. *Quarterly Review of Distance Education*, *22*(2), 39–55.

[31] Rahim, A. (2020). Guidelines for online assessment in emergency remote teaching during the COVID-19 pandemic. *Education in Medicine Journal*, *12*(2), 59–68. https://doi-org /10.21315/eimj2020.12.2.6

[32] Richter, L., & Naicker, S. (2021). A data-free digital platform to reach families with young children during the COVID-19 pandemic: Online survey study. *JMIR Pediatrics & Parenting*, *4*(2), 1–13. https://doi-org/10.2196/26571

[33] Rusu, A. (2020). Connectedness behind social distancing in times of Covid-19: Qualitative analysis of civic engagement of students and teachers in Romania. *Journal of Educational Sciences & Psychology*, *10*(1), 35–41.

[34] Sahbaz, A. (2020). Views and evaluations of university students about distance education during the COVID-19 pandemic. *Educational Process: International Journal, 9*(3), 185-198. https://doi.org/http://doi-org/10.22521/edupij.2020.93.5

[35] Sepulveda-Escobar, P., & Morrison, A. (2020). Online teaching placement during the COVID-19 pandemic in Chile: Challenges and opportunities. *European Journal of Teacher Education*, *43*(4), 587–607. https://doi-org/10.1080/02619768.2020.1820981

[36] Sharda, P., & Bajpai, M. (2021). Online learning and teaching using Google Classroom during the COVID-19 pandemic. *DESIDOC Journal of Library & Information Technology*, *41*(5), 352–357. https://doi-org/10.14429/djlit.41.5.16205

[37] Snoussi, T., & Radwan, A. (2020). Distance e-Learning (del) and communication studies during Covid-19 pandemic. *Utopia y Praxis Latinoamericana*, 25, 253–270. https://doi-org /10.5281/zenodo.4155579

[38] Watson, F., Castano Bishop, M., & Ferdinand-James, D. (2017). Instructional strategies to help online students learn: Feedback from online students. *TechTrends: Linking Research & Practice to Improve Learning*, *61*(5), 420–427. https://doi-org/10.1007/s11528-017-0216-y

[39] Watts, L. (2016). Synchronous and asynchronous communication in distance learning: A review of the literature. *Quarterly Review of Distance Education, 17*(1), 23-32.

[40] Witton, G. (2017). The value of capture: Taking an alternative approach to using lecture capture technologies for increased impact on student learning and engagement. *British Journal of Educational Technology*, *48*(4), 1010–1019. https://doi.org/10.1111/bjet.12470

[41] Xu, L., & Yang, Q. (2019). Modeling and analysis on teacher-student relationship. *Discrete Dynamics in Nature and Society, 2019*, 7. http://doi-org/10.1155/2019/5481926

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