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Educational Studies during COVID-19: A Qualitative Review

COVID-19 Döneminde Eğitim Araştırmaları: Nitel Bir Derleme

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Educational Studies during COVID-19: A Qualitative Review

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Abstract

Although digitalization in education and distance education are important phenomena of the 21st century, face-to-face education continued its dominant role until the COVID-19 pandemic. With the pressure of the pandemic to continue education remotely, a new and challenging period has emerged for all stakeholders in education. This study is intended to investigate educational studies indexed in the TR INDEX during COVID-19 emergency remote teaching to provide a detailed and comprehensive picture of research interests and foci. The research employed qualitative research methodology and the narrative literature review design in which patterns, themes, and relationships are sought to be recognized, and a narrative explanation of the results of the examined papers is provided. A large amount of qualitative data from the 74 examined articles was analyzed collaboratively through Atlas.ti qualitative data analysis software is crucial in providing a sound interpretation of such data and creating valid results. The findings revealed that the COVID-19 studies in the TR index are categorized under three themes, namely “instructor”, “student”, and “system”, all of which have strength and weakness categories.

Keywords: Covid-19, TR index, Educational studies, Narrative literature review design, Atlas.ti

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Introduction

Humankind has witnessed numerous crises such as wars and catastrophes, which have had a certain degree of impact on education at a local level, but perhaps COVID-19 has led to the largest disruption in education in human history, including all agents like students, teachers, stakeholders, administrators, etc. on a global scale. The governments reacted rapidly and took strict precautions against continuing social life and ensuring the continuity of education. However, based on the report broadcast by the United Nations ([UN], 2020), by April 2020, around 1.6 billion learners from more than 190 countries, which corresponds to 94 percent of the world's school population, were adversely affected as a result of the government's precautions taken such as lockdowns and school closures to prevent the spread of the disease. The impact has been far more challenging, especially in underdeveloped countries whose education systems are quite fragile because of the various economic reasons that constrain ensuring learning at home without interruption.

Despite the massive disruptions at social and economic levels, COVID-19 has also provided an opportunity for digital transformation in education. As ensuring the continuity of education has become the priority of governments during the crisis around the world, an emergency remote online teaching mode has been chosen for the delivery of the learning. Depending on the economic infrastructure and socioeconomic development, online learning has been delivered with variability either through complete online delivery where there are no internet and infrastructure constraints or through blending online teaching with educational TV programs in areas with limited technological infrastructure and internet connection.

However, this rapid and incautious digitalization and transformation in education has brought along its challenges, unfortunately. It has been widely acknowledged in the literature that emergency online teaching during COVID-19 has increased the disparity and inequality in education in many aspects in terms of pedagogical factors, psychological factors, socio-economic factors, technology-oriented factors, and policy-oriented factors (Grewenig, Lergetporer, Werner, Woessmann & Zierow, 2021; Haelermans, Korthals, Jacobs, Vermeulen, Vugt & Wolf, 2022; Qazia et al., 2020).

Concerning pedagogical factors, it has been reported that e-learning tools that have been extensively used to facilitate learning at schools, colleges, and universities during lockdowns and closures have fulfilled the need in times of crisis, but they have caused adaptability problems for some learners, as each learner is unique on his/her own and has varying needs (Pokhrel & Chhetri, 2021). Additional pedagogical challenges have been presented as the teachers' and educators' obligations to embrace technology despite their poor digital skills and lack of or limited knowledge of educational technology (Barrot, Llenares & Rosario,

2021). Concerning psychological concerns, it has been suggested that sustaining education at home without necessary social interaction and communication leads to emotional breakdowns and psychological distress that constrict productivity (Akat & Karataş, 2020). Perhaps, the most emphasized challenge was related to the sufficiency and readiness of infrastructure in technical and technological aspects (Barrot et al., 2021; Hamid, Sentryo & Hasan, 2020; Laksana, 2020). Those aspects were reported as accessibility constraints because of limited internet and software-oriented issues and affordability obstacles that limit learners' access to knowledge because of socio-economic variables. Following the digital transformation in education, a radical curriculum change, and reform were necessary to align each subject's curriculum and content with the demands of digital education. However, the lessons were conducted through conventional face-to-face teaching content and materials by the instructors, who, ironically, were left unguarded and helpless during the process (Pokhrel & Chhetri, 2021).

COVID-19 has also impacted scientific studies closely causing an explosion of research investigating the effect on learners, teachers, academicians, parents, administration, and policymakers as the process limited the alternatives for the area of research. The researchers more specifically questioned the learning and teaching experiences of learners, teachers, and academicians during the crisis, observed parents' perspectives about emergency remote teaching, and examined administrators and applications of policymakers in general. Within this perspective, the present study was undertaken in this context. However, what sets the current study apart from the previous studies is that it investigates the educational studies in TR INDEX during COVID-19 emergency teaching to provide a detailed and comprehensive picture of research interest and focus. It was assumed that addressing this issue would provide a better understanding of the teaching-learning process during the pandemic which may lead to overcoming challenges in front of online teaching and taking advantage of it. In this respect, the following research questions are addressed within the scope of the present study.

Research questions

In the articles that researched the Covid-19 pandemic effect on the Turkish educational context,

1. What are the research foci explored in the studies?
2. What are the findings?

Method

The study employed the qualitative research methodology and a narrative literature review design to identify patterns, themes, and relationships, as well as provide a narrative explanation of the results of the papers examined (Whittemore & Knafl, 2005). This design has been preferred as it perfectly matches the aim of this research, which is to find common themes and identify similarities and differences in the results of examined papers.

Search method and study selection

The literature review process was carried out in seven stages explained by Pluye and Hong (2014): 1) formulate a review question; 2) define eligibility criteria; 3) apply an extensive search strategy; 4) identify potential relevant studies; 5) select relevant studies; 6) appraise the quality of included studies and 7) synthesize included studies. The details that reveal researchers' actions and decisions in searching for and selecting the studies are given below in Figure 1.

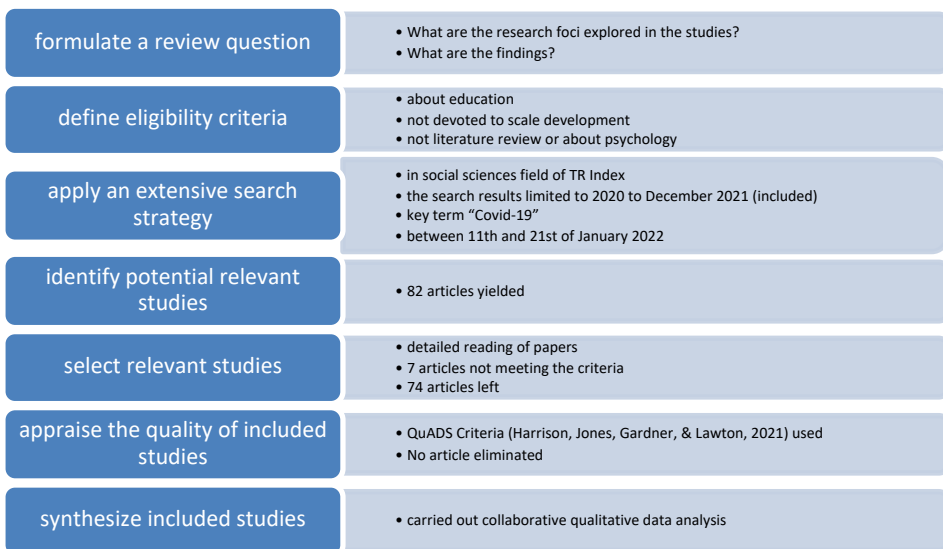


Figure 1. Literature Review Process

As can be seen in Figure 1, following the formulation of review questions and defining eligibility criteria, an extensive search strategy was applied to the TR index by using the keywords "education" and "COVID-19". This process yielded 82 articles, but 8 articles that did not meet the criteria defined in the second stage of Figure 1 were excluded, and a total of 74 articles were examined in the next step. The next step included the examination of the quality of those studies in terms of data sources and procedures, data analysis and synthesis, etc.

proposed by Harrison et al. (2021) to systematize the review procedure. All articles included in that process were found to be appropriate for inclusion in data analysis, which was the last step.

Data analysis and validity

A large amount of qualitative data from 74 examined articles was analyzed through collaborative qualitative data analysis which is crucial in providing sound interpretation of such data and creating valid results (Ganji, Orand & McDonald, 2018). The collaborative qualitative data analysis includes a cross-check of coding strategies and interpretation of data by independent researchers, and the most important quality of it is its potential to reveal alternative interpretations that emphasize thoroughness, both in terms of analyzing the data and in providing an account of how the analysis was developed (Barbour, 2001). The collaborative data analysis that may take place in a face-to-face workshop or from a distance through the Internet is a process in which there is joint focus and dialogue among two or more researchers regarding a shared body of data to come up with a common interpretation (Cornish, Gillespie, Zittoun, 2014). As a result, the collaborative qualitative data analysis was preferred to provide validity of the analysis and it took place in the form of a face-to-face workshop in which perfect agreement was sought between the two researchers between the 1st and 17th of April 2022. In the analysis of the qualitative data, Atlas.ti (version 9) which is a qualitative analysis software that makes systematic analysis of large volumes of data easier and increases the validity of research results especially at the conceptual stage of an analysis by providing a chance to go back and forth within the raw data (Friese, 2012) was used. Since the aim of this research was finding common themes and identifying similarities and differences in the results of examined papers and as a result of it there was no prior theoretical map before the analysis, the analysis of the qualitative data followed an inductive approach in which networks of concepts are assembled from individual and small groups of concepts developed during the analysis (Maxwell & Chmiel, 2014). So, the analysis started by coding the concepts in the data and then bringing these concepts (codes) together under categories depending on their similarities or relationships.

Findings

What was the research focus in the examined studies?

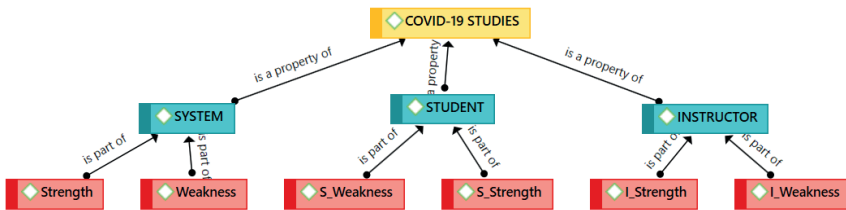


Diagram 1. Categories and Themes in COVID-19 Studies in TR Index

As can be seen in Diagram-1, the COVID-19 studies in the TR index are categorized under three themes, namely “instructor”, “student”, and “system”, all of which have strength and weakness categories. These themes—instructor, student, and system—with their strength and weakness categories include findings about to what extent these elements of education were ready for the rapid transition to distance education at the beginning of the pandemic; how they adapted and reacted during the distance education for one and a half years; what the common problems were during that process; and how the distance education affected them personally and professionally.

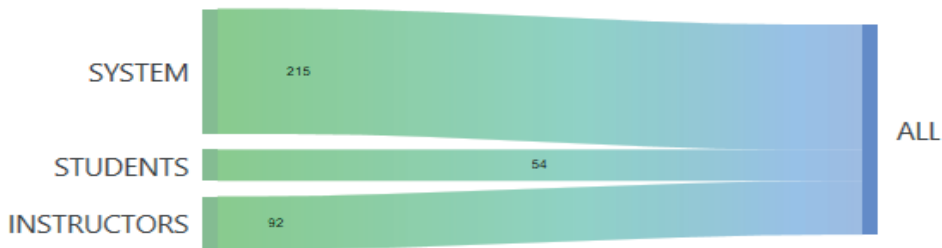


Diagram 2. Sankey Diagram on Distribution of Quotations

The qualitative data analysis yielded a total of 361 quotations labeled with 91 codes in all 74 documents. As Diagram-2 represents, most of these quotations are linked with the “system” theme (n = 215; 59.55 %). The theme with the second highest number of quotations is “instructors” (n = 92; 25.50 %). The number of quotations in the “students” is 54 in (14.95 %). The distribution of 92 codes in terms of density is the same. The theme with the highest number of codes is “system” (n = 39; 42.39 %), and it is followed by “instructors” (n = 29; 31.52 %), “students” (n = 24; 26.08 %). The details for each theme are given hereafter.

What are the findings related to the “instructors” theme?

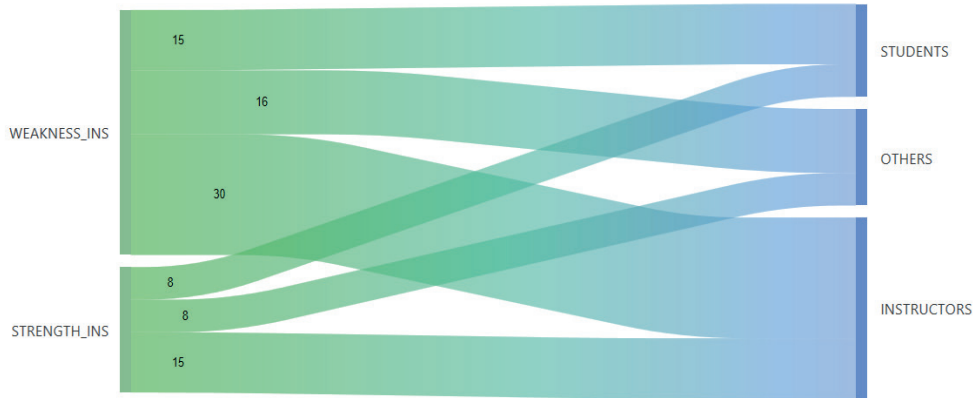


Diagram 3. Sankey Diagram on Categories of Instructors Theme

As Diagram-3 illustrates, the data sources for the instructors and all other themes were grouped under three categories: instructors at all levels and fields of education as the first, students at all levels as the second, and others in which mixed groups of participants, such as students and instructors, students and parents, etc., or other sources than instructors and students, for example, parents only, ministry of national education authorities, etc., provided information as the third group. There are 92 quotations in this category, and they are labeled with 29 codes. The weakness category includes both a higher number of quotations ($n = 61$; 66.30%) and codes ($n = 19$; 65.51%), and it is seen that nearly half of the quotations in this category are based on the data collected from instructors ($n = 30$; 49.18 %). The code with the highest frequency in the weakness category of the instructors’ theme is labeled as an “assessment problem” ($f = 10$; 16.39 %). This highlights limited opportunities to use various methods in assessment and validity and reliability issues. Of these ten quotations, seven (70.00 %) come from the instructors themselves, two (20.00 %) from students, and one (10.00 %) from others. The code with the second highest frequency in this category is “classroom management challenge” ($f = 9$; 14.75 %), which explains technical or methodological issues related to classroom management in the distance education process. More than half of the quotations for this code, just like the previous one, come from instructors ($f = 5$; 55.56%), while the other two sources equally share the remaining four quotations ($f = 2$; 22.22 %). The code labeled as “lack of technological knowledge” that remarks the absence of required technological knowledge in the distance education process has a frequency of five (8.20 %) and the two sources—instructors and students—keep an equal number of quotations ($f = 2$; 40.00 %), while there is one coming from the other (20.00 %). Another code with the same frequency is “insufficient feedback” ($f = 5$; 8.20 %), which reveals the problem of

not providing or receiving enough feedback for assignments and exams. While each of the two groups, others, and students, has 2 quotations (40.00 %) for this code, the instructors' group has one (20.00 %). The other code is called "traditional teaching methods", which explains the inconsistency between previous teaching habits employed in the new context brought by distance education because of the pandemic. It is linked to four quotations ($f = 4$; 6.56 %), all of which are based on the data from instructors ($f = 4$; 100.00 %). The other codes with a relatively higher frequency are "content development issue" which focuses on the lack of appropriate content for distance education, and "lack of guidance" which highlights limited or no guidance by institutions and/or instructors about and during the process of emergency remote education, "lack of technical support" representing the existence of technical problems for which support was not given by authorities, and "planning problem" that emphasizes issues arising from the lack or inflexibility of plans, all of which are quoted three times (4.92 %).

The strength category of the instructors' theme includes 31 quotations (33.70 %) and 10 codes (34.49 %), and as can be seen in Diagram-3, nearly half of the quotations come from the data from instructors ($f = 15$; 48.38 %), while the other two information sources, namely students and others, share the remaining 16 quotations equally ($f = 8$; 25.81 %). The code with the highest number of frequencies in this category is "professional development" ($f = 11$; 35.48 %) which indicates the contribution of the distance education process to instructors' professional skills. Instructors and others groups both have five quotations (45.45 %) linked to it, while the remaining one quotation comes from students' data. The code with the second highest frequency is "instructor support" ($f = 7$; 22.58 %), which cites all kinds of support (cognitive, affective, technical, etc.) by instructors. Out of the seven quotations, three (42.86 %) come from instructors and the remaining four are shared equally by students and others (28.57 %). The other code that is comparatively high in this category is labeled as "competency in technological knowledge" ($f = 5$; 16.13 %). This code puts forward the existence of technological skills and knowledge required to carry out instructional applications during distance education, and most of the quotations for this code are linked with the data from students ($f = 4$; 80.00 %), while the remaining one is attached to data from instructors (20.00 %). There is only one other code with a higher frequency than the one that is called "providing feedback" ($f = 2$; 6.45), which indicates providing/receiving enough feedback for assignments and exams and is sourced back to the data from instructors ($f = 1$; 50.00 %) and students ($f = 1$; 50.00 %). This category contains six other codes, all of which are mentioned once ($f = 1$; 3.23 %): "communication with parents," "increasing importance of teacher," "increasing psychological skills," "monitoring opportunity," "personal development," and "variability in assessment."

What are the findings related to the “students” theme?

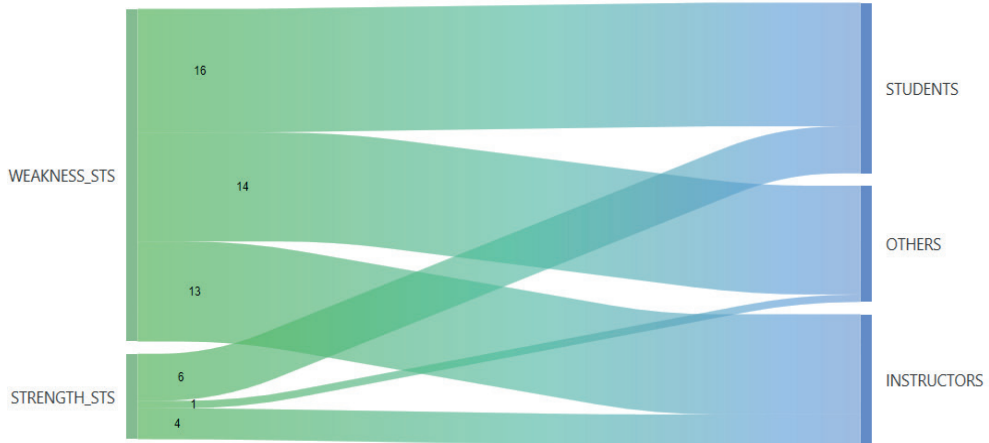


Diagram 4. Sankey Diagram on Categories of Students Theme

Diagram-4 shows that there are 54 quotations in the “students” theme, most of which are associated with the weakness category ($n = 43$; 79.63%), and out of those 43 quotations, 16 (37.21 %) are linked to the data received from students, 14 (32.56 %) quotations from others, and 13 (30.23 %) from instructors. Only a small number of quotations are linked with the other category which is called strength ($n = 11$; 20.37 %). Those 54 quotations are attached to a total of 23 codes, and the number of codes in the weakness category ($n = 14$; 60.87 %) also outnumbers those in the strength category ($n = 9$; 39.13 %).

In the weakness category of the theme, the code with the highest number of quotations is “motivational problems” ($f = 13$; 30.23 %), which underlines the lack or low level of motivation of students to carry out educational practices in the distance education process. The students as a data source hold nearly half of the quotations ($f = 6$; 46.15 %) for this code, while five of them come from others (38.46 %) and two from instructors (15.39 %). The code with the second highest frequency is called “participation problem” ($f = 6$; 13.95 %), which describes the limited interaction between students and teachers. Out of the six quotations, four (66.67 %) come from the data from instructors, and the remaining two are from others (33.33 %). The other code with a relatively high frequency is labeled as “low academic achievement” ($f = 4$; 9.30 %), which points out not being able to reach the desired level of success through distance education. The distribution of this code among the three data sources is as follows: two from students (50.00 %), one from instructors (25.00 %), and the other from others (25.00 %). There is another code with the same frequency rate as the previous one named “inappropriate study environment” ($f = 4$; 9.30 %) that calls attention to an

improper atmosphere and/or conditions in the living space for preparing for, attending, and participating in the distance education and doing homework. Most of the quotations for this code are linked with the data from students ($n = 3$; 75.00 %), while the remaining quotation (25.00 %) is attached to the data from others. There are three other codes in this category with a frequency above one. The first one is labeled as “overexposure to screen” ($f = 3$; 6.98 %), which refers to the issue of overtime in the online environment that goes beyond the distance education process, and the number of quotations is equally distributed among the three data sources ($f = 1$; 33.33 %). The second one is named “stress” ($f = 3$; 6.98 %), which explains the pressure brought by the rapid transition to the distance education process and the uncertainties that accompanied by it. While two of the quotations (66.67 %) for this code are attributed to the data from students, the remaining one (33.33 %) comes from others. The last code with a frequency above one in this category is “irresponsible parents” ($f = 3$; 6.98 %). It draws attention to the parents who ignore their roles to monitor and support their children in the distance education process. All quotations ($f = 3$; 100.00 %) for this code are attached to data from instructors. The remaining seven codes, namely “limited family interaction”, “permanent learning problem”, “self-regulation problem”, “lack of commitment to school”, “free time management”, “psychological constraints” and “attendance problems”, are all attached to one quotation ($f = 1$; 2.33 %).

In the strength category of this theme, there are only two codes with a frequency higher than one. The first of them is named “self-regulated learning” ($f = 2$; 18.18 %), which indicates the development of autonomous learning triggered by distance education, and the quotations linked with this code are distributed between instructors (50.00 %) and students (50.00 %). The other code with more than one quotation is called “parental support” ($f=2$; 18.18 %), which refers to parents’ monitoring of their children’s learning process. One of the two quotations for this code is linked with instructors (50.00 %) while the other one is based on data from others (50.00 %). The remaining seven codes, all of which are quoted once, are “better study”, “lifelong learning”, “higher academic success”, “high engagement”, “motivated students,” “decrease in exam anxiety,” and “enabling permanent learning.”

What are the findings related to the “system” theme?

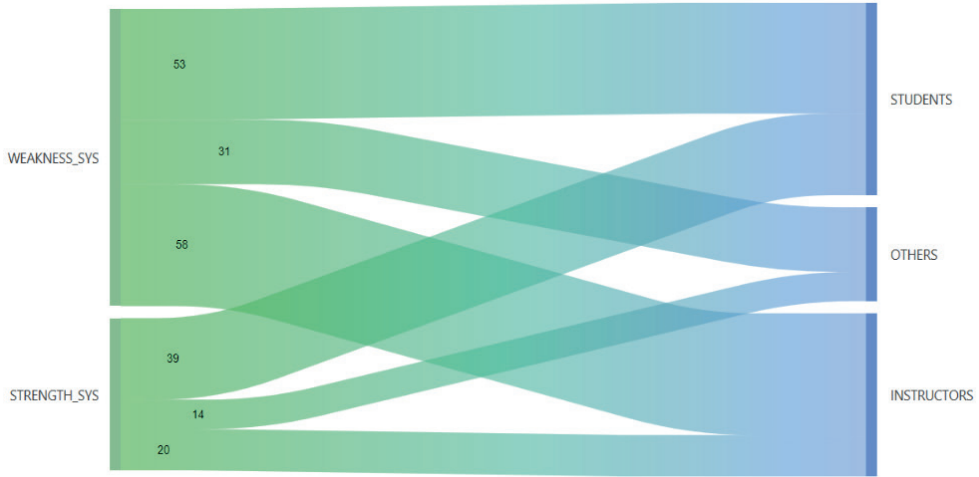


Diagram 5. Sankey Diagram on Categories of System Theme

As can be seen in Diagram-5, the total number of quotations attached to the codes within the weakness category under the system theme is 142. Out of the total, 58 quotations were elicited from “instructors” data sources, which corresponds to 40.85 %, 53 quotations were associated with the data fragments referenced with “students”, which is equal to 37.32 %, and 31 quotations were attached to the data segments in “others” data source, whose ratio to the total is 21.83 %.

Concerning the distribution of codes within the “weakness” category under the “system” theme, 23 code labels have been identified for 142 quotations. The first code with the highest number of quotations is “infrastructure-related problems,” which has been labeled for the quotations emphasizing the lack of and constraints in the infrastructure that prevent distance education from running efficiently and effectively. The code has been applied in 50 instances and its overall ratio is 35.21 %. Across the data sources, the same code has been referenced 25 times in instructor-based data sources, which corresponds to 50 % of the total, 19 times in student-based data sources, which is equal to 38 % of the total, and 6 times in other labeled data sources, which represents 12 % of the total quotation number.

The frequency decreases significantly in the remaining codes. The second code that is high in groundedness is “limited interaction,” in which the participants utter their concerns about interaction in the online classroom sessions. A total of 15 quotations were associated with the relevant code, and the association is equal to 10.56 % of the total number. Of these 15 quotations, 7 were attached to data segments investigating students as participants, with an

overall ratio of 46.67 %, 6 were obtained from instructor-sourced data, accounting for 40 % of the total, and 2 were referenced with other headed data sources, with a ratio of 13.33 %.

The third code in the order of frequency of occurrence is labeled as “courses inappropriate”, which includes quotations about certain courses that were considered inappropriate for distance education. The frequency number of the code is 12, which implies that the code has been associated with 12 data segments whose ratio to the total is 8.46 %. Of these 12 occurrences of the code, 6 of them were obtained from student-based data sources (50 %), 5 of them were obtained from the data source investigating instructors (41.67 %), and 1 of them was obtained from another entitled data source (8.33 %).

The code labeled as “material problems” is the fourth in the category based on frequency count as it was applied in 10 instances, 7 from instructor-based data sources and 3 from other based data sources, which represents 7.44 % of the total.

The following three codes, “choice of face-to-face education”, “communicational problems” and “inequality of opportunity”, share the fifth place in the order of frequency as each of them has been applied on 9 occasions, whose relative frequencies to the total are 6.34, and 33 %. What is striking is that regarding the “choice of face-to-face education” code label, most of the quotations were referenced in student-based data sources (77.78 %). Another thing is that the “inequality of opportunity” code has been quoted mostly in other headed data sources, which includes participants other than teachers and students, and their perceptions about emergency distance education creating inequality among students (66.67 %).

The following codes, “accessibility problem”, “lack of social opportunities”, “short class time”, “inadequate number of questions”, “unpreparedness”, “limited audio-visual functions”, “copyright issue”, “inappropriate for individual learning”, “privacy issue” and “system textbook mismatch” have not been discussed in detail because of space concerns and the relatively low level of frequency within the category.

Concerning the category of “strength” under the system theme, a total of 16 code labels were attached to 73 quotations and data fragments. When the category was analyzed across data sources as given in Figure 5, it was seen that 39 quotations from the students’ data sources were associated with the codes within the category, which corresponds to 53.42 % of the total. From the teacher-sourced data, the number of quotations that were referenced is 20, and the ratio of the associations is 27.40 %. The remaining 14 quotations were associated with the data that belonged to the other data source, which is equal to 19.18 % of the total number.

Three codes stand out because of their groundedness when the code distribution is analyzed. The first code concerning the frequency count is “flexibility of place”, which implies the ease

and comfort provided by distance education, which makes it possible for students to access education remotely. A total of 13 data segments were referenced with the code, which corresponds to 17.11 % of the total. Across data sources, 9 of the 13 quotations were obtained from the data sources investigating students whose overall ratio is 69.23 %, and the remaining 4 quotes were referenced with the data segments investigating instructors and others, two for each which corresponds to 15.38 %. The code that is ranked second based on groundedness is “flexibility of time.” This is provided by distance education, which enables flexibility in determining the time and pacing of the learning. The code was associated with 10 data segments whose ratio of frequency to the total number is 13.16 %. Of the total number of associations with the code, 60 % of them were referenced from the studies investigating students. The third code in the rank order is “live lessons”, which has been applied in 9 instances with an 11.84 %. As with the previous codes, the majority of the associations for this code are derived from studies analyzing students. Of the 9 associations, 5 of them were referenced with student-oriented studies investigating students, which corresponds to 55.56 %. The remaining four instances of the code were from both “instructors” and “others” entitled data sources, of which there were two for each.

The frequency for the following codes decreases steadily. In this sense, they were just presented with their labels and groundedness numbers because of the space concerns as in the previous category and themes. The other strengths of the system that were labeled from the studies analyzed are “recorded lesson advantage” and “education uninterrupted”, which were applied in 6 instances, “proper course length” and “accessibility” which were attached to 5 data segments, “saving time”, “student-centered”, “economical advantage”, “support materials” and “sufficient activity” whose frequency count was 3 and “attractive design”, “decreasing the risk of illness” and “alternative learning environment” code labels which were associated with 3 data segments. The code that has the lowest frequency level was labeled as “equality of opportunity”, which was applied only once. When the data were analyzed across data sources, a consistent finding with the previous ones was obtained because more than half of the code-data associations for the category were obtained from data observing students (53.95 %), which was followed by instructors-oriented data sources, whose frequency declined by nearly half (27.63 %).

Results

The findings of the research show that the articles written about the COVID-19 era distance education and published in TR Index centered predominantly on the facilitating and debilitating impact of distance education during COVID-19 on instructors and students. One of the most crucial weaknesses in terms of instructors was identified as the classroom management challenge during the distance education process. Another weakness in terms of instructors was spotted as insufficient feedback. The findings revealed that the emergency distance education process during COVID-19 posed strict challenges for teachers and academicians, especially in terms of assessing learning and evaluating learners' performance validly and reliably. The findings further unveiled the teachers' and instructors' lack in technological knowledge to run emergency distance education during COVID-19 effectively. The analysis of the studies also pointed to the prevalent use of traditional teaching methodologies by teachers and academicians in online classrooms, which could be considered one of the most significant constraining factors in sustaining student learning (Almazova, Krylova, Rubtsova & Odinkaya, 2020).

While the compulsory distance education process caused many problems for instructors that were labeled as weaknesses according to the findings of this study, it is important to note that it also resulted in various attainments such as professional development in terms of technological pedagogical knowledge and online classroom management. Another crucial strength of the instructors in the distance education process identified in the examined studies was the support they provided to learners. The other benefit of the distance education process, as revealed by the findings, is that it provided opportunities for teachers and instructors to develop their competency in technological knowledge.

Just like the instructor theme discussed up to here, weaknesses are dominant in the student theme compared to strengths according to the findings of this study, and one of the prominent issues in the weakness category is motivational problems that students face during the emergency distance education process. The participation problem was identified as another issue in the process, and it was linked with the motivational problems discussed above. A critical concern in the findings related to the weakness category of students was a low academic achievement while other notable weaknesses brought by the distance education process were an inappropriate study environment and overexposure to screens.

On the other hand, the process opened the way for several strengths for the students, despite the challenges and problems it posed, which were reported as increasing self-regulated learning, increasing parental support that is vital for motivation and learning, more permanent learning, and better study and lifelong learning opportunities.

Probably the most critical constraining factor preventing the effective implementation of distance education during COVID-19 were system-related issues which refer to obstacles originating from agents other than students and teachers as revealed by the findings. Especially, limited infrastructure rooted in lack of hardware and software, internet connection problems, and other technical constraints were reported as the major weaknesses in the selected papers analyzed. Another significant factor hindering the effective implementation of distance education and adoption of online learning during COVID-19 was identified as the limited interaction between teachers and students. The other strong finding of the present research within the category of system weakness is the unsuitability of certain courses to conduct online via distance education which requires face to face practice as in fine arts education, physical education, and sports teaching, lab experiments in science courses and teacher training courses. Additionally, the findings further exposed that material-oriented problems were another system-related major concern in the selected papers. The other remarkable findings that are noteworthy to report are the choice of face-to-face teaching rather than distance education in certain papers.

The strength of the distance education system, on the other hand, is especially rooted in two advantages: the flexibility of time and place. As a final note on the strength of the distance education system, it is noteworthy that distance education was also favored for providing the continuity of education under the condition of serious health concerns and giving learners a chance to access the lesson contents when they were recorded.

Discussion and Suggestions

The problem of classroom management identified within this research is parallel with the studies in the literature that highlight this concern as an emerging challenge (Nurfauziah, Suryaman & Mobit, 2022) and a force requiring changes in the concurrent classroom management skills (Nau, 2021). This means that the COVID-19 pandemic's distance education process revealed instructors' lack of classroom management skills in online teaching and learning environments, which should be addressed in pre-and in-service training. The technical issues, such as insufficient online platforms to support oral and visual participation of students that lead to classroom management problems, should also be worked out by institutions and policymakers. Another problem highlighted in the results is lack of providing feedback and it is important to eliminate this problem as receiving feedback is highly expected and meaningful for students in distance education (Stewart & Lowenthal, 2022).

Another issue identified has been the lack of validity and reliability in terms of assessment during the online education process caused by the COVID-19 and it is consistent with the existing studies conducted in different educational contexts, highlighting the complexity of

remote assessment in sustaining validity and reliability (Akimov & Malin, 2020; Huber & Helm, 2020; Sharadgah & Sa'di, 2020). In this respect, it is suggested that teachers and academicians should be offered opportunities to increase their competency in formative assessment and alternative assessment tools through training to provide grounds for valid and reliable assessment for student learning during distance education.

The lack in technological knowledge to run emergency distance education during COVID-19 effectively correlates with the relevant studies investigating the impact of a rapid transition to distance education and the preparedness of the teachers in terms of competency in technological skills to ensure students' learning (Almazova et al., 2020; Winter, Costello, O'Brien, & Hickey, 2021).

It is a well-known fact that distance education requires the implementation of flexible and versatile teaching methods and techniques that are enhanced with digital materials. In this sense, it is vital to know about the strategies to transform traditional one-to-one teaching into online classrooms. Therefore, it could be argued that teachers should be provided with methodological support in terms of technological pedagogical content knowledge for an efficient online learning environment.

According to the findings, the emergency remote teaching also brought some opportunities to the lecturers for professional development and the literature provides similar results (Mabalane, 2022). It is not clear in the examined studies to what extent professional development occurred as a result of the support by institutions or personal efforts, while individual attempts were highlighted more. This implies the need for a systematic professional development process in distance education for instructors organized and coordinated by institutions in the Turkish educational context.

Another strength linked to the instructors is the help they provided to their learners as students need direct and quick help from instructors to develop their ability to construct meaning on their own, take part in and keep up communication, and reach an understanding of the concepts by actively engaging with the digital resources in distance education (Hartnett, 2016), which might be difficult for those instructors who cannot support students' learning needs as they lack familiarity with home learning environments (Chiu, 2022).

The development of the instructors in terms of technological knowledge could be attributed to teachers' growing awareness of their deficiencies as a result of the hasty transition to distance education without necessary preparations, as well as their growing concerns about compensating for it. In this sense, it could be argued that the process was seen as a chance to meet the deficiencies in the knowledge base. Within this perspective, the finding is in line with the existing studies in the literature suggesting that the process enhances teachers' tech-

nological knowledge and contributes to their professional development (Lie, Tamah, Gozali, Triwidayati, Utami & Jemadi, 2020).

The lack of motivation that is the most common issue in the negative category of the student theme is found to be common in different contexts also (Aberšek & Aberšek, 2022; Ng, 2022). This problem can be attributed to many internal factors such as psychological and social problems brought on by the social distancing and isolation as a result of the pandemic and external factors such as socio-economic problems including parental and monetary issues, lack of hardware, instructor-related issues, etc. As motivation is accepted to be crucial in learning (Bahodirovna, 2022; Sinaga, 2022), the factors that deter learners' motivation should be eliminated by instructors, parents, and all other political and social institutions. The second major problem is the participation issue which could be rooted in the distance education platforms that limit audio and video connections, which led to instructor-centered lessons. The limited interaction between teachers and students was attributed to the lack of platforms and software which were used to conduct online classes. This coheres with the findings of the research putting forward that limited communication and interaction were reported as one of the major challenges debilitating the implementation of distance education (Adnan & Anwar, 2020; Ilias, Baidi, Ghani & Razali, 2020). In this sense, policymakers have a big responsibility to provide necessary online education systems that allow interaction not only between students and teachers but also between students and other students.

The success of the learners has been a major concern in the examined articles and findings mostly signaled negative perceptions while the literature provides conflicting results about it, losing (Engzell, Frey & Verhagen, 2021) or not losing (Depping, Lücken, Musekamp & Thonke, 2021) in academic success. While the findings of this study reveal low academic achievement concerns depending on the views of instructors, students, and parents, there is not a study that statistically presents such a problem, which can be suggested for forthcoming studies.

The literature provides similar results for the strengths of the students provided by the distance education in terms of increasing self-regulated learning (Calamlam, Ferran & Macabali, 2021; Putri, Muqodas, Abdulloh & Yuliyanto, 2020); increasing parental support that is vital for motivation and learning (Brown, Doom, Lechuga- Peña, Watamura & Koppels, 2020; Klootwijk, Koele, Hoorn, Guroglu & Duijvenvoorde, 2021); more permanent learning, which could be attributed to the digitalization of content with various visual and auditory tools and supports; and better study and lifelong learning opportunities that could be credited to the flexibility of time and place for learning and teaching that is enabled by distance education.

The system-related problems that arouse from lack of hardware and software or technical issues and difficulties has been identified as the biggest obstacle in front of a successful distance education process and in this sense, the current study presents consistent findings with the existing literature in different educational contexts (Almajali, Hammouri & Barakat, 2021; Mailizar, Almanthari, Maulina & Bruce, 2020).

The courses such as science, art, physical education, etc. require application of theoretical knowledge into practice and communication and interaction between students and teacher that is completely observable in traditional formal teaching but may be considered extremely difficult to convey through the distance education process. In this sense, it is clear that the content and way these courses are organized should be adaptable to distance education for the future possibilities of similar emergencies.

It could be argued that the rapid transition to distance education because of COVID-19 took the policymakers, authorities administrators and teachers off guard without a necessary adaptation period. As a result, the teachers had to adapt traditional course materials to online teaching which yielded unwanted results for the teachers and students in terms of delivery, instruction, and learning. Also, the teachers' lack of digital skills may be argued to prevent them from preparing and providing digital materials that are consistent with the nature of distance learning. In this respect, it could be suggested that the finding is in line with the findings of the existing studies in different educational contexts highlighting the importance of designing online instructional materials for effective implementation of distance education process (Gurajena, Mbunge & Fashoto, 2021).

The preference of face-to-face teaching rather than distance education in certain papers can be credited to the students' and teachers' lack of technological knowledge to follow and conduct online courses, communicational problems which could be attributed to the limited efficiency of the e-portals to deliver courses that do not allow for mutual communicational exchanges, inequality of learning opportunity among students because of socio-economic reasons that have been frequently cited in the relevant literature in different educational contexts (Blundell, Dias, Joyce & Xu, 2020; Jæger & Blaabæk, 2020; Waller, Hodge, Holford, Milana & Webb, 2020).

The flexibility of place and time that distance education provides is also stated in the international literature (Belousova, Mochalova & Tushnova, 2022; Gonçalves, Sousa & Pereira, 2020). Knowing these advantages, educational institutions at all levels should benefit from them even after the pandemic, may be in a more blended way that brings together these advantages of distance education with solutions to problems accompanying it like assessment issues through face-to-face applications and lessons. Live lessons also stand out as a pre-

ferred method of distance education, especially by students, according to the findings of this study that is parallel to the literature (Al-Musili, Bataineh & Al-Jamal, 2022). At this point, it should be investigated in more detail why synchronous online lessons that are both time and place dependent (Bensilva, Abraham & William, 2022) are preferred more, while the flexibility of place and time are among the most appreciated aspects of distance education.

For further research that is intended to employ qualitative methodology in this or any other topic, it is suggested to use Online Photovoice (OPV) which is one of the most recent and effective innovative qualitative research methods as it gives opportunities to the participants to express their own experience with as little manipulation as possible if at all, compared to traditional quantitative methods (Doyumğaç, Tanhan, Kıymaz, 2021; Tanhan et al., 2021).

It can be concluded that contextual factors, just like the perception of effectiveness, are important in how learners and instructors perceive the emergency distance education process. It is highly advised that future policies, especially on infrastructure, hardware, software, and institutional support, should be created for a much more effective application of distance education without waiting for the next tremendous effect on education, namely another pandemic or natural disaster.

It should be noted that this research is context specific as it includes overview of the previous research on educational practices in Turkey during COVID-19 pandemic in 2020-2021; that's why results of this research is limited to providing a whole picture of the era rather than generalizable information. Therefore, it could be offered to carry-out meta-analysis over quantitative data from the articles published in the given period to have a clear understanding over the effect of the pandemic period on academic success. The search strategy employed in the process of article selection in which the key word was "COVID-19" and context was "education" also limited the number of articles to be included in the literature review. Besides, the searching duration might have limited the number of articles to be reached as the journal policies might result in late registration of the articles to the TR Index.

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COVID-19 Döneminde Eğitim Araştırmaları: Nitel Bir Derleme

Geniş Özet

Giriş

COVID-19, bilimsel çalışmaları da yakından etkilemiştir ve bu süreç araştırma alanı için alternatifleri sınırladığından öğrenciler, öğretmenler, akademisyenler, ebeveynler, yönetim ve politika yapıcılar üzerindeki etkisini araştıran bir araştırma patlamasına neden olmuştur. Bu bağlamda, araştırmacılar pandemi sırasında öğrencilerin, öğretmenlerin ve akademisyenlerin öğrenme ve öğretme deneyimlerini daha spesifik olarak sorgulanmış; velilerin acil durum uzaktan öğretimine ilişkin bakış açılarını gözlemlenmiş ve genel olarak yöneticilerin ve politika yapıcılarının uygulamalarını incelemiştir. Bu bakış açısıyla, bu çalışma pandemi döneminin eğitime büyük çapta etki ettiği bir dönemi daha iyi anlamak amacıyla yapılmıştır. Bununla birlikte, mevcut çalışmayı önceki çalışmalardan ayıran şey, COVID-19 acil durum öğretimi sırasında TR dizindeki eğitim çalışmalarını araştırma ilgisi ve odağının ayrıntılı ve kapsamlı bir resmini sunmak için incelemesidir. Bu konunun ele alınmasıyla, pandemi sırasında öğretme-öğrenme sürecinin daha iyi anlaşılmasını sağlayacağı ve çevrimiçi öğretimin önündeki zorlukların üstesinden gelinmesini ve bundan yararlanılmasını sağlayabileceği varsayılmıştır. Bu bağlamda, bu çalışma kapsamında aşağıdaki araştırma soruları ele alınmaktadır: Çalışmalarda araştırma odakları nelerdir? Bulgular nelerdir?

Yöntem

Araştırmada, örüntü, temalar ve ilişkilerin belirlenmesinin amaçlandığı ve incelenen makalelerin sonuçlarının betimsel bir açıklamasının sağlandığı (Whittemore ve Knafl, 2005) nitel araştırma metodolojisi ve betimsel literatür taraması tasarımı kullanılmıştır. Bu desen, amacı incelenen makalelerin sonuçlarındaki ortak temaları bulmak ve benzerlikleri ve farklılıkları belirlemek olan bu araştırmaya tam olarak uyması nedeniyle tercih edilmiştir. İncelenen 74 makaleden elde edilen büyük miktarda nitel veri, bu tür verilerin sağlıklı yorumlanmasında ve geçerli sonuçlar oluşturulmasında çok önemli olan (Ganji, Orand ve McDonald, 2018) işbirlikçi nitel veri analizi yoluyla analiz edilmiştir. Bu araştırmanın amacı, incelenen makalelerin sonuçlarında ortak temalar bulmak ve benzerlik ve farklılıkları belirlemek olduğundan ve buna göre analiz öncesinde bir teorik kavram haritası bulunmadığından, nitel verilerin analizinde analiz sırasında geliştirilen bireysel ve küçük kavram gruplarından bir araya gelen ağların olduğu (Maxwell & Chmiel, 2014, s. 31) tümevarımsal bir yaklaşım izlenmiştir.

Bulgular

TR indeksinde yer alan COVID-19 çalışmaları, güçlü ve zayıf kategorileri olan “eğitmen”, “öğrenci”, “sistem” olmak üzere üç tema altında kategorize edilmiştir. Bu üç tema pandeminin başlangıcında eğitimin bu unsurlarının uzaktan eğitime hızlı geçişe ne kadar hazır olduğuna dair bulguları; bir buçuk yıl boyunca uzaktan eğitime nasıl uyum sağlayıp tepki verdikleri; bu süreçte ortak sorunların neler olduğu ve uzaktan eğitimin onları kişisel ve mesleki olarak nasıl etkilediğine ilişkin bulguları ortaya koymaktadır.

Nitel veri analizi, 74 çalışmanın tamamında 91 kodla etiketlenmiş toplam 361 alıntı ortaya koymuştur. Bu alıntıların çoğu “sistem” temasıyla bağlantılıdır (n=215; %59,55). En çok alıntı yapılan ikinci tema ise “eğitmenler” (n=92; %25,50) temasıdır. “Öğrenciler” temasında 54 (%14,95) alıntı bulunmaktadır. 85 kodun yoğunluk olarak dağılımı da benzerdir. En fazla koda sahip tema “sistem” (n=39; %42,86) olup, bunu “eğitmenler” (n=29; %31,87) ve “öğrenciler” (n=23; %25,27) izlemektedir.

Eğitmenler temasında 92 alıntı bulunmakta olup, bunlar 29 kod ile etiketlenmiştir. Zayıf kategorisi hem daha fazla sayıda alıntıyı (n=61; %66,30) hem de kodu (n=19; %65,51) içermektedir ve bu kategorideki alıntılarının yaklaşık yarısının **öğretim** elemanlarından toplanmış verilere (n=30; %49,18) dayalı olduğu görülmektedir. Eğitmenler temasının zayıf kategorisinde en yüksek frekansa sahip kod “değerlendirme problemi” (f=10; %16,39) olarak etiketlenmiş olup, **ölçmede çeşitli** yöntemleri kullanma konusunda sınırlılıklar ile geçerlik ve güvenilirlik sorunlarını vurgulamaktadır. Eğitmenler temasının güçlü yönler kategorisi 31 alıntı (%33,70) ve 10 koddan (%34,49) ve alıntılarının yaklaşık yarısı eğitmenlerden gelen verilerden oluşmaktadır (n=15; %48,38). Diğer iki bilgi kaynağı, yani **öğrenciler** ve diğerleri, kalan 16 alıntıyı eşit olarak paylaşmaktadır (n=8; %25,81). Bu kategoride en yüksek frekansa sahip kod, uzaktan eğitim sürecinin **öğretim** elemanlarının mesleki becerilerine katkısını gösteren “mesleki gelişim” (f=11; %35,48) kodudur.

Öğrenciler temasında çoğu zayıf yönler kategorisine ait 54 alıntı olduğu görülürken, bunlar toplam 23 kodla ilişkilendirilmiştir. Zayıf yönler kategorisindeki kod sayısı (n=14; %60,87) da güçlü yönler kategorisinden (n=9; %39,13) fazladır. Zayıf yönler kategorisinde bulunan 43 alıntıdan (n=43; %79,63) 16’sı (%37,21) **öğrenciler**, 14 alıntı (%32,56) diğerleri ve 13’ü (%30,23) eğitmenlerden alınan verilerle bağlantılıdır. Az sayıda alıntı, güçlü yön olarak adlandırılan diğer kategori ile bağlantılıdır (n=11; %20,37). Temanın zayıf kategorisinde en fazla alıntı yapılan kod “motivasyon sorunları”dır (f=13; %30,23) ve **öğrencilerin** uzaktan eğitim uygulamaları yapma ve bunlara katılma motivasyonunun olmadığını veya düşük seviyede olduğunu vurgulamaktadır. Bu temanın güçlü yön kategorisinde, frekansı birden fazla olan sadece iki kod bulunmaktadır. Bunlardan birincisi, uzaktan eğitimin tetiklediği

özerk öğrenmenin gelişimini gösteren “**öz-düzenlemeli öğrenme**” (f=2; %18,18) olarak adlandırılmıştır. Diğer kod ise “ebeveyn desteği” (f=2; %18,18) olarak adlandırılmakta olup velilerin **çocuklarının öğrenme** sürecini izlemesini ifade etmektedir.

“Sistem” teması altında “zayıf yönler” kategorisinde yer alan kodların dağılımına ilişkin olarak 142 alıntı için 23 kod etiketi belirlenmiştir. En yüksek alıntı sayısına sahip ilk kod, uzaktan eğitimin verimli ve etkin bir **şekilde** yürütülmesini engelleyen altyapıdaki eksiklikleri ve kısıtlamaları vurgulayan alıntılar için etiketlenen “altyapı kaynaklı sorunlar”dır. Sistem teması altındaki “güçlü yönler” kategorisinde 73 alıntı belirlenmiş ve toplam 16 kod etiketi oluşturulmuştur. Kod dağılımı incelendiğinde **üç** kod- yer esnekliği, zaman esnekliği ve canlı dersler- yoğunlukları nedeniyle **öne çıkmaktadır**.

Sonuç ve Tartışma

Bulgular, COVID-19 sırasında acil uzaktan eğitim sürecinin eğitimciler için özellikle öğrencilerin performansını geçerli ve güvenilir bir şekilde değerlendirme açısından zorluklar oluşturduğunu ortaya koymaktadır. Bu doğrultuda, uzaktan eğitimde öğrenci öğrenmelerinde geçerli ve güvenilir bir değerlendirmeye zemin hazırlamak için eğitimcilerle biçimlendirici değerlendirme ve alternatif değerlendirme araçlarına yönelik eğitimler yoluyla yeterliliklerini artırma fırsatları sunulması önerilmektedir. Bulgular ayrıca öğretmenlerin ve eğitimcilerin COVID-19 sırasında acil uzaktan eğitimi etkin bir şekilde yürütmek için teknolojik bilgi eksikliklerini ortaya koymaktadır. Etkililik algısında olduğu gibi bağlamsal faktörlerin de acil uzaktan eğitim sürecini öğrenen ve öğretenlerin nasıl algıladıklarını oldukça etkilediği sonucuna varılabilir. Uzaktan eğitimin çok daha etkin bir şekilde uygulanması için, özellikle altyapı, donanım, yazılım ve kurumsal destek olmak üzere geleceğin politikalarının, eğitim üzerindeki bir sonraki muazzam etkiyi, yani başka bir pandemi veya doğal afeti beklemeden oluşturulması tavsiye edilir.

