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Contents

CHILDREN'S SCHOOL ONLINE EDUCATION:
ASSESSING PARENTAL SATISFACTION AND EXPERIENCES IN SUPPORTING CHILDREN'S ONLINE EDUCATION IN THE SOUTHERN PROVINCE

H. E. P. Mayuri[1], J. A. Ajith[2], D. M. T. Madushanka[3] and K. A. I. M. Amarasekara[4]

Abstract

Online education activities, which came to the fore in Sri Lanka with the global pandemic of COVID-19, are now playing a significant role in the whole educational system. This study assessed parental satisfaction and experiences supporting children's online education in the Southern Province. This study used a case study approach to examine 300 parents in the Southern Province. The research involved self-reported questionnaires with three sections. The first section collected demographic information, the second assessed parental satisfaction with their online education support skills, and the third evaluated information literacy related to technology and online resources. Data analysis was performed using SPSS software, employing descriptive statistics to estimate parental digital skills and satisfaction and Chi-square tests to explore the relationship between parental satisfaction, gender, and education level. The study tested seven hypotheses, including the impact of various parental skills on overall satisfaction with their children's online education. The study found that parents generally feel delighted with their children's online educational activities. However, regarding parents' information literacy regarding children's online educational activities, the ability to locate is optimal, but evaluating and using effectively is insufficient. Parents' operational and communication skills were found to have a strong positive impact on their satisfaction with their level of ability to assist their children's online education. The top three challenges that parents experience are: a lack of stable and high-speed internet coverage; obtaining technical support; and a language barrier. Parents' digital skills in online education activities improve children's ethical use of online education. Parents need to be aware of cybercrime and cybergaming to make ethical usage of online education a reality. As a result, it is a timely societal obligation to address the discovered gaps in parental digital literacy and information literacy and solve the stated challenges to keep children's online education activities on track.

Keywords*: Parental digital literacy, Online education, Children's education, School education*

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[1] Assistant Librarian, Faculty of Allied Health Sciences, University of Ruhuna, Sri Lanka.
Email: hepmayuri@lib.ruh.ac.lk 🆔 https://orcid.org/0000-0002-2826-9031
[2] Assistant Librarian, Faculty of Technology, University of Ruhuna, Sri Lanka.
Email: ajith@lib.ruh.ac.lk 🆔 https://orcid.org/0000-0002-2507-0967
[3] Assistant Librarian, Main Library, University of Ruhuna, Sri Lanka.
Email: thilinadmt@lib.ruh.ac.lk 🆔 https://orcid.org/0000-0003-4229-7271
[4] Assistant Librarian, Faculty of Agriculture, University of Ruhuna, Sri Lanka.
Email: inoshaamarasekara@lib.ruh.ac.lk 🆔 https://orcid.org/0000-0001-5619-1019

Introduction

As the COVID-19 virus spread worldwide, nations made emergency steps to stop the infection's transmission by resuming local or national lockdowns. There, the temporary closing of public places including schools, universities, and tutoring classes, was prominent. The importance of face-to-face education in developing countries, as well as the challenges that they encounter with distance-learning approaches, is massive (Tadesse & Muluye, 2020). However, the circumstances of the viral pandemic provided an opportunity to open new directions for global education.

After the initial closure in March 2020 at the onset of the pandemic, all schools and tutoring classes in Sri Lanka fully resumed in January 2022. The disruption of academic activities not only impacts students' education but also their psychological well-being. In response, educational authorities and teachers collaborated to introduce home-based learning using advanced online learning models and application software to mitigate the impact on students' educational pursuits. Nevertheless, the availability of online education does not imply a lack of challenges and influences.

The switch from traditional (face-to-face) education to online learning has had an impact on families' everyday activities in addition to students' education. Adapting to a changing educational system is significant not only for children and teachers but also for parents. The continuing development of online education has given parents a new perspective on their children's education and learning. When transitioning to the online learning model, parents bear the primary responsibility of furnishing financial resources, offering technical support, guidance and creating a conducive environment. In addition to parents' commitment and support for their children's online education, their digital literacy and information literacy skills should also be proficient

Numerous studies have been conducted on online education, focusing on its advantages and challenges. The COVID-19 pandemic and associated lockdowns have significantly increased interest in this area of research. However, most of these studies focus on the perspectives of students and teachers in the learning and teaching process. Even after the pandemic had been eliminated, Sri Lanka's online learning models kept going and individuals have become accustomed to using them more frequently. As a result, parents have made some effort to gather the required funds and technology to facilitate the online learning approach. The question of whether parents possess advanced digital skills that enable their children to adapt to the new online learning approach is of significant concern. Assessing the adequacy of parents' digital literacy in the context of their children's online education is

crucial. This prompts a timely investigation into how online education has influenced parents' digital skills. Such research will address a notable gap in the literature, particularly in regions like the Southern Province of Sri Lanka, where there has been limited exploration of parental behaviour regarding their children's online education.

Objectives

This study aims to investigate how parents' digital literacy skills impact the effectiveness of the online education approach for school-age children. The specific objectives are as follows:

1. Determine the association between parents' skills and parental satisfaction with their support of the children's online learning.
2. Identifying the problems faced by the parents during the children's online studies.

Literature Review

The COVID-19 pandemic impacted over 1.5 billion children and while schools have largely reopened globally, the education sector is still in the process of recovery. This involves assessing the extent of the damage incurred and extracting valuable lessons from the experience. (UNESCO, n.d.). The global pandemic has caused large-scale disruptions to the continuation of structured schooling for approximately 4.2 million students and 235,000 teachers in Sri Lanka (UNICEF, 2021). Because of this situation, there are disparities in learning inside and between countries (Azevedo et al., 2022). Hence, there is a need to address both school and family factors to reduce the impact of learning gaps between social groups (González & Bonal, 2021). Online education, which previously had been minimally utilized, presented an opportunity for the authorities' efforts to reduce that impact.

Post-COVID situations have opened many opportunities and challenges in the education world (Sunil & Srilakshminarayana, 2022). Simultaneously, online education is gaining significance in lots of countries. Many researchers have discussed the benefits of online education (Riasati et al., 2012; Xia et al., 2013; Wang et al., 2019) and researchers have taken the initiative to identify the challenges faced by parents in online education (Bhamani et al., 2020; Dong et al., 2020; Agaton & Cueto, 2021). Furthermore, from the perspective of parents, online education leads to enhancing self-regulated learning skills and digital sociability in their children (Misirli & Ergulec, 2021). On the other hand, Hurlbut (2018), Hong et al. (2020) and Engzell et al. (2021) emphasize the inadequacy of student progress in online education. However, there has been a significant increase in children's

Internet, social networking, chat and online gaming activities to go along with an increase in online academic activities (Siste et al., 2020). According to the UNESCO case study report, despite varying levels of access to extensive infrastructure in Sri Lanka, problems in providing uniform distance learning methods across the country and disparities in participation were identified, while teachers were not adequately trained, which was identified as a positive in teachers adapting to distance learning methods quickly (UNICEF, 2021). Regardless, all the studies point in the optimistic direction of online education as a potential opportunity.

To realize the benefits of online learning systems, stakeholders such as students and teachers, as well as parents, must be equally involved. Due to the convenience and flexibility it provides from the students' perspective, online learning has become more popular (Singh et al., 2012). Positive experiences related to students' self-efficacy beliefs related to online learning (Lobos et al., 2022). When learning online, students gain from simple ways to ask questions, get answers etc. (Hollister et al., 2022). Students are quick to adapt to online education because of features including an attractive environment, multimedia presentations, recording and reuse ability. From the teachers' perspective, although teachers have positive perceptions of the usefulness and ease of use of online education, there are attitudinal problems regarding its effectiveness and use (Rahayu & Wirza, 2020). Teacher's perception of the biggest challenge for online classes is technological and network challenges (Priyadarshani & Jesuiya, 2021). Therefore, they need technical support and training in the use of online tools (Elfirdoussi et al., 2020). However, parents, the third party involved in the online education process, also have a part to play. However, parents are concerned about their children's workload and increasing screen time as a result of online education (Gupta et al., 2022). Parents are satisfied with the length of online learning and the number of assignments (Lau et al., 2021). Furthermore, parents feel very satisfied with their children's online studies in primary education (Deepthi Kumari & Jayathilaka, 2022). For online learning to be used effectively, the satisfaction and dedication of the three parties mentioned are essential.

Information literacy is a set of abilities requiring individuals to "recognize when information is needed and have the ability to locate, evaluate and use effectively the needed information" (American Library Association, 1989). Furthermore, information literacy is a lifelong need to be informed and up-to-date. Parental literacy has a significant impact on a child's later educational achievement (Harju-Luukkainen et al., 2020). Indeed, the low digital literacy of parents affects the lack of parental support in their children's online education (Rasmitadila et al., 2020). We strongly believe that parents should have excellent information

literacy skills as well as digital skills, particularly in online learning environments where children are exposed to technology and wider society.

Methodology

This study utilized the case study method and 300 parents of children studying in schools in the Southern Province were randomly selected as respondents. Only primary data were used in this study. It used self-report tools consisting of a socio-demographic details. Questionnaire consisted of three sections. The questionnaire was checked by one of the academic librarians that was utilized for collecting the data. Section one was to collect demographic information of the parents, including parental gender (Male/Female), age and educational qualification.

A self-report scale was used to measure parental satisfaction with their level of skills to support kids' online education, which consists of six items, including "Satisfaction on operational skills with online related devices and online platforms used", "Communication skills with online platforms", "Troubleshooting skills during online classes", "Learning skills on new technologies", "Teaching skills to assist their kids" and the sixth question was devoted to exploring the "Overall satisfaction of parents towards online education" in Section Two.

In Section Three of the questionnaire, parents were questioned about the ability to locate, ability to evaluate, and ability to use effectively information literacy domains through the knowledge of information and communication technology equipment (ICT) and tools, online education resources, cybercrime, cybergaming, and social media. A descriptive research method was used for presenting the data.

To discover factors associated with parents' online education-related digital literacy, hypothesis testing was used. Children's online study would be influenced by their parents' digital literacy in online education. As a result, we predicted that parents' digital literacy levels would be related to their satisfaction with their level of skills to support their children's online learning activities.

The collected data from 5-point Likert scale answers were entered and analyzed using SPSS (Statistical Package for Social Sciences) software. Descriptive statistics were used to estimate the parental digital skills and satisfaction with online education. Inferential statistics, a Chi-square test, was used to find the relationship between parents' overall satisfaction with their level of skills to support their kids' online education, the gender of the parents, and the educational level of the parents.

The following hypotheses were developed to test:

H1: Parents' Operational Skills make an impact on parents' overall satisfaction with their kids' online education

H2: Parents' Communication Skills make an impact on parents' overall satisfaction with their kids' online education

H3: Parents' Troubleshooting Skills make an impact on parents' overall satisfaction with their kids' online education

H4: Parents' Learning Skills makes an impact on parents' overall satisfaction with their kids' online education

H5: Parents' Teaching Skills make an impact on parents' overall satisfaction with their kids' online education

H6: Parent's gender makes an impact on parents' overall satisfaction with their kids' online education

H7: Parent's education level makes an impact on parents' overall satisfaction with their kids' online education

Results

There were 62.67% (188) female and 37.33% (112) male respondents to the questionnaire. Among them, 14.67% (44) were above 60 years of age, 61.67% (185) were 40 to 60 years of age and 23.67% (71) were beyond 40 years of age. Their achieved education levels on graduation or higher were 22.33% (67), passed the G.C.E. (A/L) examination at 50.33% (151), passed the G.C.E. (O/L) examination at 19.67% (59) and below the G.C.E. (O/L) examination at 7.67% (23). Figure 1 shows the mean values of parental information literacy levels for each child's activity related to online education.

The mean of the ability to locate the overall online activity results was displayed between 'excellent' and 'good'. However, the ability to evaluate and use effective results was displayed as less than 'average'. Furthermore, literacy in cybercrime and cybergaming was less than 'average '. This result indicated that there are different levels of parental information literacy, both positive and negative.

The study used a scale with five theoretical dimensions derived from the results of two previous studies (Jimoyiannis, 2015; Vodă et al., 2022). Table 1 presents the association between parental satisfaction and their digital literacy skills. A Chi-square Test was performed to identify the association of independent variables (Operational Skills, Communication Skills, Troubleshooting Skills, Learning Skills and Teaching Skills) with the

dependent variable (Parental Satisfaction). Based on Table 1 values of acceptance of the hypothesis or rejection of the hypothesis were decided. When the Sig. (2-tailed) value is less than 0.05, the hypothesis was accepted.
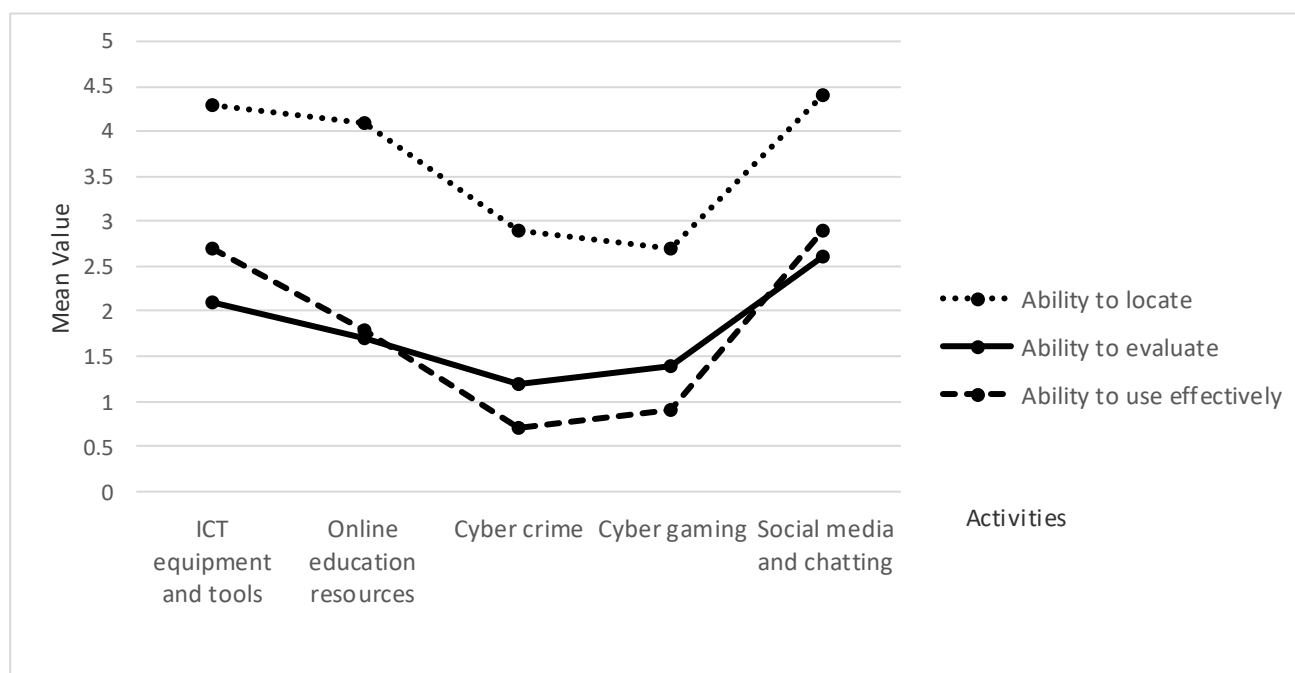
Figure 1: Distribution of the Mean Values of Parental Information Literacy Levels for each Children's Activities

Table 1: Chi-square Test Results for Finding Association between Parental Satisfaction and their Digital Literacy Skills

Parental Satisfaction * Digital Literacy Skills Crosstabulation					
	Operational Skills	Communication Skills	Troubleshooting Skills	Learning Skills	Teaching Skills
Chi-square value	301.433*	323.231*	61.509*	130.972*	85.226*
Degrees of freedom	16	16	12	16	16
Sig. (2-tailed)	0.000	0.000	0.000	0.000	0.000
N	300	300	300	300	300
The significance level is 0.05 (2-tailed).					

Table 2 shows the association between parental satisfaction and their demographic information. According to Tables 1 and 2, except for the educational level of the parents, gender and all mentioned digital skills were statistically associated with Parental Satisfaction on their children's online education. That means, all the hypotheses were accepted and there was no significant difference or association between Parental Satisfaction and the Educational Levels of Parents. All digital skills made significant impacts on Parental Satisfaction on their children's online education individually.

Table 2: Chi-square Test Results for Finding Association between Parental Satisfaction and their Characteristics.

Parental Satisfaction * their Characteristics Crosstabulation		
	Gender	Education Level
Chi-square value	17.928**	16.724**
Degrees of freedom	4	12
Sig. (2-sided)	0.001	0.160
N	300	300
**The significance level is 0.05 (2-tailed).		

Table 3: Parental Overall Satisfaction with their Children's Online Education (n=300)

		Frequency	Percent	Valid Percent
	Poor	10	3.3	3.3
	Fair	27	8.9	9.0
Valid	Good	65	21.3	21.7
	Very good	112	36.7	37.3
	Excellent	86	28.2	28.7
	Total	300	98.4	100.0
Missing	System	5	1.6	
	Total	305	100.0	

Table 3 indicates that a significant proportion of parents expressed varying levels of satisfaction regarding their ability to support their children's online education. Specifically, 37.3% of parents reported being very satisfied, while 28.7% expressed excellent satisfaction.

Additionally, 21.7% of parents reported feeling good satisfaction with their skills to support their kids' online education. On the other hand, 9% of parents expressed a fair level of satisfaction, and 3.3% reported poor satisfaction with their skills to support their children's online education.

Table 4 reveals most parents (91%) claimed they had to rely on relatives, coworkers or other persons who were computer literate to help or accompany their children to an online lesson since they lacked the necessary technological skills. As Internet access is the primary necessity for online learning, it is hoped that children will be able to fully engage in online learning with adequate Internet access. However, 89% of parents reported that they had problems maintaining a steady high-speed internet connection as the second-highest percentage of parents. The third-highest percentage of parents, 84% of parents reported that their language barrier is a major issue. As a result, they were unable to grasp messages from teachers and the conversations that their children were having with their peers.

Table 4: Challenges Faced by Parents in Online Learning Ecosystem (n=300)

Problems Encountered by Parents	N	%
Difficulty obtaining technical support	273	91
A lack of stable high-speed internet coverage	267	89
A language barrier	252	84
Difficulty managing home duties and teaching responsibilities	237	79
the child is not attentive during online classes	210	70
the home environment is not comfortable for learning	189	63
Understanding lessons via online education is a challenge for their child.	177	59
their kids struggled to adjust to online classes	144	48

Discussion

It is not enough for parents to be committed to their children's studying online; parents' awareness is equally essential. Parents must be adaptable to the children and those activities as well as satisfied with their children's online educational activities. Parents should be ICT literate to accomplish that. The level of parents' satisfaction with their level of skills to support children's online educational activities was 3.79, which is displayed between 'neutral' and 'satisfied'. It has been highlighted here as a significant factor. However, it will be

accepted that parental concern and involvement in their children's online education are at a moderate level.

When it comes to parents' digital literacy about their children's online educational activities, their ability to locate information remains optimal. There, too, parents have sufficient knowledge of ICT equipment and tools, online education resources, social media, and chatting. However, a lack of parents' awareness of cybercrime and cybergaming allows children to misuse online education. This means that effective evaluation and utilization of information are not optimal. This result indicates that, even though it is possible to find online information sources that can be used for the identified information need, it is not sufficient to be able to choose the best ones. To that end, with the digital generation gap, it is vital to emphasize that the approach of relying on family for assistance in areas of communication technology appears to be becoming increasingly common. Parents who had less experience with new technology sometimes looked to their siblings, especially those who had children older than their own, for advice on how to deal with this digital generation gap. They frequently depended on older, more computer-proficient relatives or cousins to keep an eye on their children. When a technology issue developed, they turned to their children for answers. (Clark, 2009) It's not entirely awful, but they should be ICT literate to achieve that. Many scholars have discovered an association between literacy and educational attainment. Indeed, there was a significant association between parental satisfaction and operational skills, communication skills, learning skills, teaching skills, and troubleshooting skills individually. Parents' usage of social media and mobile devices has more of an impact on children's online educational activities than their educational skills in terms of locating information.

However, learning and teaching abilities must be improved to maximize parents' capacity for knowledge evaluation and effective information use. We believe that holding information literacy education seminars and workshops for parents is not the solution. On a scenario basis, we recommend small group programs at the school level and information specialist help and mentoring programs, especially about cybercrime and cybergaming. The improvement of Troubleshooting Skills, which was a key issue we examined in the study, will surely be a further challenge in the future. Because, in an instance where existing technology knowledge cannot be covered, gaining new technology and related equipment troubleshooting skills that are updated daily is necessary to outperform their intelligence level. They will need the assistance of a technical professional for this. In our study, the top three problems faced by parents during their children's online education are identified as the

main challenges that parents address are a lack of stable high-speed internet coverage, difficulty obtaining technical support, and a language barrier. Parents must overcome the challenges posed by current situations to maintain the best environment for their children's online education.

Conclusion

Parental digital literacy is very important because their children's online learning activities require parental supervision to keep them running smoothly. Furthermore, parents' skills in online education activities encourage children's ethical usage of online education. As a result, parents' capacity to assess information and apply it effectively needs to be improved to keep children's online education activities moving in a positive direction. Additionally, parents require some assistance to improve their teaching, learning, and troubleshooting skills. However, parents' satisfaction with their children's online learning activities and their capacity for information discovery have a significant role in how well their children learn online. Further strengthening it, filling gaps and overcoming the challenges we have discovered would allow parents to eliminate the drawbacks of online education while providing beneficial advantages to their children.

References

Agaton, C. B., & Cueto, L. J. (2021). Learning at home: Parents' lived experiences on distance learning during COVID-19 pandemic in the Philippines. *International Journal of Evaluation and Research in Education (IJERE)*, *10*(3), 901-911. https://doi.org/10.11591/ijere.v10i3.21136

American Library Association. (1989). Presidential Committee on Information Literacy: Final report. http://www.ala.org/acrl/publications/whitepapers/presidential

Azevedo, J. P., Gutierrez, M., De Hoyos, R., & Saavedra, J. (2022). The unequal impacts of COVID-19 on student learning. In F. M. Reimers (Ed.), *Primary and Secondary Education During Covid-19* (pp. 421–459). Springer International Publishing. https://doi.org/10.1007/978-3-030-81500-4_16

Bhamani, S., Makhdoom, A. Z., Bharuchi, V., Ali, N., Kaleem, S., & Ahmed, D. (2020). Home learning in times of COVID: Experiences of parents. *Journal of Education and Educational Development*, *7*(1), 9-26. https://doi.org/10.22555/joeed.v7i1.3260

Clark, L. S. (2009). Digital media and the generation gap: Qualitative research on US teens and their parents. *Information, Communication & Society*, *12*(3), 388–407. https://doi.org/10.1080/13691180902823845

Deepthi Kumari, R. A. D., & Jayathilaka, S. S. R. (2022). Impact of parent satisfaction on children's online learning during the Covid-19 pandemic. *Shanlax International Journal of Education*, *10*(3), 20–29. https://doi.org/10.34293/education.v10i3.4489

Dong, C., Cao, S., & Li, H. (2020). Young children's online learning during COVID-19 pandemic: Chinese parents' beliefs and attitudes. *Children and Youth Services Review*, *118*, 105440. https://doi.org/10.1016/j.childyouth.2020.105440

Elfirdoussi, S., Lachgar, M., Kabaili, H., Rochdi, A., Goujdami, D., & El Firdoussi, L. (2020). Assessing distance learning in higher education during the COVID-19 pandemic. *Education Research International*, *2020*, 8890633. https://doi.org/10.1155/2020/8890633

Engzell, P., Frey, A., & Verhagen, M. D. (2021). Learning loss due to school closures during the COVID-19 pandemic. *Proceedings of the National Academy of Sciences*, *118*(17), e2022376118. https://doi.org/10.1073/pnas.2022376118

González, S., & Bonal, X. (2021). COVID-19 school closures and cumulative disadvantage: Assessing the learning gap in formal, informal and non-formal education. *European Journal of Education*, *56*(4), 607–622. https://doi.org/10.1111/ejed.12476

Gupta, R., Aggarwal, A., Sable, D., Chahar, P., Sharma, A., Kumari, A., & Maji, R. (2022). Covid-19 pandemic and online education: Impact on students, parents and teachers. *Journal of Human Behavior in the Social Environment*, *32*(4), 426–449. https://doi.org/10.1080/10911359.2021.1909518

Harju-Luukkainen, H., Vettenranta, J., Wang, J., & Garvis, S. (2020). Family-related variables effect on later educational outcome: A further geospatial analysis on TIMSS 2015 Finland. *Large-Scale Assessments in Education*, 3. https://doi.org/10.1186/s40536-020-00081-2

Hollister, B., Nair, P., Hill-Lindsay, S., & Chukoskie, L. (2022). Engagement in online learning: Student attitudes and behavior during COVID-19. *Frontiers in Education*, *7*, 851019. https://doi.org/10.3389/feduc.2022.851019

Hong, Y., Li, X., Lin, Y., Xie, J., Yan, X., & Lin, Z. (2020). A comparative study of online education and traditional offline education during COVID-19 [Preprint]. https://doi.org/10.21203/rs.3.rs-61593/v1

Hurlbut, A. R. (2018). Online vs. traditional learning in teacher education: A comparison of student progress. *American Journal of Distance Education*, *32*(4), 248–266. https://doi.org/10.1080/08923647.2018.1509265

Jimoyiannis A. (2015). Digital Literacy and Adult Learners. In M. J. Spector (ed.), The SAGE Encyclopedia of Educational Technology (pp. 213-216). Thousand Oaks, California: SAGE Publications.

Lau, E. Y. H., Li, J.-B., & Lee, K. (2021). Online learning and parent satisfaction during COVID-19: Child competence in independent learning as a moderator. *Early Education and Development*, *32*(6), 830–842. https://doi.org/10.1080/10409289.2021.1950451

Lobos, K., Cobo-Rendón, R., Mella-Norambuena, J., Maldonado-Trapp, A., Fernández Branada, C., & Bruna Jofré, C. (2022). Expectations and experiences with online education during the COVID-19 pandemic in university students. *Frontiers in Psychology*, *12*, 815564. https://doi.org/10.3389/fpsyg.2021.815564

Misirli, O., & Ergulec, F. (2021). Emergency remote teaching during the COVID-19 pandemic: Parents experiences and perspectives. *Education and Information Technologies*, *26*(6), 6699–6718. https://doi.org/10.1007/s10639-021-10520-4

Priyadarshani, H. D. C., & Jesuiya, D. (2021). Teacher's perception on online teaching method during Covid-19: With reference to school level teachers at Faculty of Education, The Open University of Sri Lanka. *Shanlax International Journal of Education*, *9*(2), 132–140. https://doi.org/10.34293/education.v9i2.3662

Rahayu, R. P., & Wirza, Y. (2020). Teachers' perception of online learning during pandemic Covid-19. *Jurnal Penelitian Pendidikan*, *20*(3), 392–406. https://doi.org/10.17509/jpp.v20i3.29226

Rasmitadila, R., Aliyyah, R. R., Rachmadtullah, R., Samsudin, A., Syaodih, E., Nurtanto, M., & Tambunan, A. R. S. (2020). The perceptions of primary school teachers of online learning during the COVID-19 pandemic period: A Case study in Indonesia. *Journal of Ethnic and Cultural Studies*, *7*(2), 90–109. https://doi.org/10.29333/ejecs/388

Riasati, M. J., Allahyar, N., & Tan, K. E. (2012). Technology in language education: Benefits and barriers. *Journal of Education and Practice*, *3*(5), 25–30.

Singh, S., Rylander, D. H., & Mims, T. C. (2012). Efficiency of online vs. Offline learning: A comparison of inputs andoutcomes. *International Journal of Business, Humanities and Technology*, *2*(1), 93–98.

Siste, K., Hanafi, E., Sen, L. T., Christian, H., Adrian, Siswidiani, L. P., Limawan, A. P., Murtani, B. J., & Suwartono, C. (2020). The impact of physical distancing and associated factors towards internet addiction among adults in Indonesia during COVID-19 pandemic: A nationwide Web-based study. *Frontiers in Psychiatry*, *11*, 580977. https://doi.org/10.3389/fpsyt.2020.580977

Sunil, M. V. & G. Srilakshminarayana. (2022). Information Literacy among high school students: A study about cyber literacy for the use of online resources. *Journal of Information and Knowledge,* *59*(5), 307–317. https://doi.org/10.17821/srels/2022/v59i5/170701

Tadesse, S., & Muluye, W. (2020). The impact of COVID-19 pandemic on education system in developing countries: A review. *Open Journal of Social Sciences*, *08*(10), 159–170. https://doi.org/10.4236/jss.2020.810011

UNESCO. (n.d.). UNESCO's education response to COVID-19. UNESCO. https://www.unesco.org/en/covid-19/education-response/initiatives

UNICEF. (2021). Situation analysis on the effects of and responses to COVID-19 on the education sector in South Asia. https://www.unicef.org/rosa/reports/situation-analysis-effects-and-responses-covid-19-education-sector-south-asia

Vodă, A. I., Cautisanu, C., Grădinaru, C., Tănăsescu, C., & de Moraes, G. H. (2022). Exploring digital literacy skills in Social Sciences and Humanities students. *Sustainability*, *14*(5), 2483. https://doi.org/10.3390/su14052483

Wang, C., Hsu, H.-C. K., Bonem, E. M., Moss, J. D., Yu, S., Nelson, D. B., & Levesque-Bristol, C. (2019). Need satisfaction and need dissatisfaction: A comparative study of

online and face-to-face learning contexts. *Computers in Human Behavior*, *95*, 114–125. https://doi.org/10.1016/j.chb.2019.01.034

Xia, J., Fielder, J., & Siragusa, L. (2013). Achieving better peer interaction in online discussion forums: A reflective practitioner case study. *Issues in Educational Research*, *23*(1), 97–113.