



PARENTAL ENGAGEMENT IN ONLINE LEARNING FOR UNIVERSITY STUDENTS DURING COVID-19

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Abstract: In this essay, we have emphasized the educational practices of the students during COVID-19 and evaluated the parents' role in enhancing their children's learning attitude. Four hundred individuals from various educational institutions provided information, which was then processed for SPSS data analysis. We initially evaluated the questionnaire's consistency and discovered that it was better. When we later calculated some summary statistics, we saw that most queries displayed normality. According to chi-square analysis, it was found that parents with higher educations helped their kids with their online learning—high-speed internet service. Parents with education helped their kids manage their time so they could study online with a positive attitude. They supported the purchase of the online learning equipment financially and encouraged their children to change their behavior towards it.

Keywords: Covid-19, Students attitude, Higher learning, parent's qualification

I. INTRODUCTION

Due to the coronavirus illness (COVID-19) and the pandemic's impact on all aspects of society and the economy, many institutions' educational levels in roughly 188 countries were briefly closed [1]. Several countries have continued to close institutes since the emergence of COVID-19, which has affected over one billion students globally [1]. This was critical since university campuses are vulnerable places where huge numbers of students connect and share, leading to fast viral spread [2]. Universities should plan for repeated and lengthy class suspensions over the next two years, based on the current status of the pandemic [3]. As a result, researching parents' satisfaction with online learning, which may impact their educational engagement behavior, is timely and crucial in order to suggest ideas for improving online teaching methodologies. According to previous study, parents who are happy with their children's university learning and engagement opportunities have less parenting stress and greater parental involvement [4]. When parents think the university is not helpful and attentive to their children's requirements in their education and collaboration with parents, they lose the need or willingness to cooperate [5]. Coronavirus (COVID-19) began rapidly spreading worldwide before the end of 2019, according to a UNESCO study, killing over 3000 people. As a result, several governments began instituting effective anti-virus strategies, such as school closures. 46 nations across five continents have shut down schools and universities as of March 12th in order to prevent the spread of COVID-19 [6]. 500 million

children and teens are at risk of being unable to go to school or university because of countrywide lockdowns.

All forms of education outside conventional universities are called "online education." According to [7], online education is a social learning and IT-enabled educational strategy that enables instructors and students to interact daily. Like students, most online academicians and instructors need more knowledge in various disciplines. E-learning is the most renowned of these. The practice of utilizing digital learning technologies is called "e-learning." [8].

Remote education is growing along with internet education and e-learning. The basis of distance education is the foundation of online learning. "Several terms, including e-learning, online learning, and remote education, have been used to characterize non-face-to-face and distance learning based on the above-mentioned definitions and arguments." According to [9], some colleges and other educational organizations offer online education to increase the diversity of their student body. The popularity of online education has influenced a variety of different techniques, according to [10], and it will continue to expand in the future. By the end of May 2021, the fourth wave of COVID-19 infections in Hong Kong had passed, and the target of zero cases for 28 days had been attained. Schools have been completely reopened for face-to-face sessions on a half-day basis from late May 2021. However, in early June 2021, some additional local COVID-19 cases were discovered, perhaps signaling the start of the fifth wave of infections.

According to a prior study, online education requires resources that parents can only access. To maintain the effectiveness of online education over time, parental participation is essential. Parental participation refers to any assistance given by parents, guidance counsellors, or other careers to university-aged children to guarantee the completion of a particular academic programme [11]. (Epstein 1987) identified a variety of ways in which parents may help their children succeed in school, including university-to-home infrastructures, university events and attendance at extracurricular actions, and educational activities [29]. This study defines parental involvement as providing internet-enabled iPads, cellphones, notebooks, and internet statistics to learners for online learning. Without sufficient parental involvement during these unmatched COVID-19 epidemic times, online learning may be a fantasy, given the socio-economic gaps among young learners in low and medium-income countries like Pakistan. A laptop computer, high-speed internet connection, or a mobile device is frequently required for online learning and access to electricity [12]. Most earlier studies have shown a connection between parents' involvement and their kids' academic achievement, success, positive attitude towards learning, and efficient education inside and outside Pakistan [11][12][13]. As a consequence, online learning for adolescents might be easier, more engaging, and participatory for so long as technical tools and technologies are existing and affordable. As a result, [14] pointed out that teenage ICT usage spreads beyond social networking. It's too offers a learning platform where you may have immediate access to a variety of knowledge. Online learning refers to learning activities that take place through the Internet in a mixed or hybrid format with no face to face communication [15], (U.S. Department of Education 2010). In an internet-enabled setting or classroom, online learning, also known as e-learning, takes place. Traditional methods that are augmented by online resources might be classed as totally web-based, partially web-based, or hybrid. Fully web-based learning is teaching and studying all topics entirely online, with no face-to-face interaction, whereas mixed learning combines classroom and online learning methodologies. Prior to the lockout, blended learning was widely adopted in higher education institutions, but colleges still used a conventional approach with online materials as complement [16]. However, in times like this, promoting online education as a credible option to face-to-face classroom learning is important. The authors must be aware of the preparations made by students from communities with low or middle incomes regarding parental participation, student involvement, and commitment. It is impossible to emphasize the value of student participation in online learning. Wenger defined participation in 1998 as "participating in or sharing some actions or processes with others." As a result, becoming a part of a group and interacting to others in a thoughtful manner is a process. To put it another way, participation is a set of behaviors that include things like participating, working, and

feeling, discussing, and talking with others. Students' access to communication and information, as well as their participation in a variety of other activities, as specified by [17]. Collecting teaching and learning resources, engaging in group activities, and contributing to dialogues are examples of these activities. Regardless of the number of participants in a discussion site, he defines participation as joining and participating in a discourse for active and fruitful learning [18]. The percentage of the population that engages in a certain activity, whether it be schooling or anything else, is not a reliable indicator of participation [19]. Individual teenage learners participating in online education and its activities through any platform established for such activities is defined as online learning involvement in this learning [20]. To put it another way, online education is the learning process.

The relationship between parenting style and participants participation in online learning, as well as the importance of teen learner's engagement to online education success, were investigated using the engagement system of [3] Learning, according to the theory's central premise, necessitates an active psychological condition in state marked by affective, behavior, and mental commitment to technical tasks [21]. Additionally, the theory predicts that students will be naturally motivated to study if the educational system and practises are founded on digital technology. This is due to the fact that utilizing online education technologies such as internet conference, mails, teleconferences, WhatsApp, and Schoology would dramatically increase everyone's commitment to knowledge. In order to promote learning commitment, the involvement theory includes collective projects, project-based tasks, and a non-academic emphasis to create a new model for research and education in the split generation. The constructivism that drives the engagement theory also emphasizes collaboration. This keeps students engaged and motivated in their online learning. Constructivist theory, adult learner theory and contextual learning theory are all interwoven with online learning [22]. Since the engagement theory explains how to improve teen learners' commitment to online learning, the authors chose it for this research. This is done through integrating parents in the supply of digital resources and learner's engagement, bolstering the theory of non-academic, participatory, and project-based elements. This study's primary objective was to investigate the impact of parental participation and learning involvement on young learners' engagement with online learning during the COVID-19 shutdown in Pakistan.

II. LITERATURE REVIEW

Previous studies have demonstrated the significance of parental involvement in the education and success of their children. Many different techniques have been used to explain "parental participation." "Continuum of parenting behaviors" [23] was developed as a comprehensive notion of parental engagement by (Antipkina and Ludlow). These definitions of parental participation were found to be used in

several articles: a dialogue between parents and children about college, home supervision; assignment assistance; educational expectations and objectives; attendance and involvement in university events.

There are numerous ways for parents to get involved in their kids' education, but surveys of parental involvement frequently concentrate on how parents interact with their kids at home (home-based participation), at school (university-based participation), or at school (parental supervision of university tasks and rule-setting) [24]. Parental involvement in education and parental support initiated by the parents vary, according to studies [22]. The COVID-19 epidemic required parental involvement at home because of its impact on students' education. The importance of parents monitoring their children's development was emphasized, with an emphasis on parents keeping an eye on their children's study time and assisting them in developing self-control for online activities [24].

Despite the challenges, the teaching and learning lockdown may have enhanced parental involvement in educating their kids [23]. The study found that parents who acknowledged having a deeper grasp of their students' education, participated more in their student's education, and contributed more to it felt more connected to their kids' learning. Additionally, most parents, especially those with younger children, thought the home-learning setting promoted parent-teacher relationships, improving parents' interaction with teachers, and the instructors concurred [25].

III. RESEARCH QUESTIONS

RQ1: During the COVID-19 lockout, how committed were young learners to online learning?

RQ2: Did parental support and participation in their children's education play a part in ensuring their online learning during the COVID-19 lockdown?

IV. MATERIAL AND METHODS

The cross-sectional research is implemented in an online survey using a closed-ended questionnaire created by the authors and distributed to a nationally representative sample of parents using Google Forms from July 1 to August 10, 2021. This study looked at parent's socio demographic and COVID-19 related factors, as well as student's socio demographic features, distance learning settings, parental engagement, and student autonomy. Table 1 has a list of all of the variables.

Table 1. Variables Description

Variables	Measures
Parentages Socio-demographic and COVID-19	Education Level Gender Age Contact with family in COVID-19
Students characteristics	Age Gender

	Semester University Name
Parental involvement	Parents provides the internet services during online learning. Parents helped the children in time management. Parents showed a positive attitude towards online learning during COVID-19. Parents are very supportive in providing positive home environment Parents encouraged, when they got bad grades. Parents can understand well the value of online learning. Parents make sure to take rest when child feel tired. Parents understand online learning requirements. Parents encouraged the children to seek information about online learning during COVID-19. Parents encouraging for online classes. Parents showed flexible behavior towards online learning. Due to the regional background, Parents can facilitate well for online learning during COVID-19.
Students autonomy	Strongly Agree Agree Neutral Disagree Strongly Disagree Frequently needs to presence of an adult Other

It's worth noting that numerous instruments for collecting data on parental participation have been proposed in the literature, incorporating parental involvement at home, parental involvement at university, communication between home and campus [27]. On the other hand, the conditions surrounding the data collection for this research required a more focused questionnaire tailored to the particular actions and behaviors of parental involvement during the COVID-19 university lockdown.

In 5-point Likert scale, the perceived degree of student autonomy was used to operationalize student autonomy. However, because this variable connects to parents' reported conduct and the other to a more abstract sense of autonomy,

we selected to examine parental engagement in task execution as an extra indicator of autonomy [26]. Data was obtained from 400 parents (68 percent women and 32 percent fathers) of students in various stages of university study, ranging from first-year University to MPhil-level education. Students aged 19 to 24 years old are in the first level of education, students aged 24 to 28 years old are in the MPhil level of education, and students aged up to 28 years old are in the third level of education. As observed in the research in this domain, the quantity of time parents dedicate to assisting their university student’s activities was also used to measure parental involvement [29].

V. RESULTS AND DISCUSSION

To assess the information gathered via the use of questionnaires, we turned to the SPSS. Descriptive statistics such as frequency, mean, median, mode and measures of dispersion and shape were used to determine the general theme of the data after Cronbach Alpha was used to examine the data's reliability. Afterwards, we used the cross tabulation to evaluate the performance of one attribute in the presence of other attribute. For the assessment of association among attributes, Chi square test is also considered where we have tested the null hypothesis of no association and concluded the findings on the basis of p-values.

A. Reliability Test

Reliability analysis denotes to the concept that a scale should consistently reflect the hypothesis it is computing. Although there are many techniques available to evaluate the reliability of the data before processing it for advanced analysis. In this research, we interpret and used the Cronbach Alpha which as follows:

Table 4.1: Cronbach’s Alpha along with its Internal Consistency levels

Value of Cronbach Alpha	Internal Consistency Level
$\alpha \geq 0.9$	Outstanding
$0.9 < \alpha \leq 0.8$	Good
$0.8 < \alpha \leq 0.7$	Satisfactory
$0.7 < \alpha \leq 0.6$	Dubious
$0.6 < \alpha \leq 0.5$	Poor
$0.5 < \alpha$	Unacceptable

The underlying data's Cronbach Alpha score is 0.934, which is outstanding in terms of dependability. The SPSS software's reliability analysis command is used to determine this number. Consequently, our following computational results are likewise dependable and efficient because of the efficient value of Cronbach Alpha [30].

B. Regional Background and Descriptive Analysis

We considered a sample of 400 respondents to study the COVID-19 effects on students’ performance and parent’s contribution in managing the online study of their children’s.

Among 400 students 290 were having the rural background whereas 110 students have the Urban background. It has been observed that about 127 mothers were Maser degree holders which is an effective tool in engaging their students in online learning. Beside this 116 fathers were also master degree holders.

Table 4.2: Parents Qualification of 400 respondents

Father Qualification	Mother Qualification						Total
	SSC	HSSC	Bachelor	Master	MPhil /PHD	Under Matric	
SSC	27	11	9	12	1	8	67
HSSC	7	16	2	35	0	10	71
Bachelor	42	11	18	8	2	3	84
Master	3	9	0	61	0	43	116
MPhil/PHD	3	1	7	0	6	1	18
Under Matric	1	6	0	11	0	26	44
Total	83	54	36	127	9	91	400

There were 10 students with 16 years’ age, 55 having 17 years, 135 with 18 years’ age, 150 with 19 and 50 students of 20 years’ age. Most of the samples were taken from Okara, Renala Khurd, Haveli Lakha and Depalpur along with some neighboring rural areas. Along with the descriptive statistical measures, we also used the Chi-square test to evaluate the association among different attributes. Many we focused on the gender based study along with parent’s contribution towards online learning.

Table 4.3: Do you get bore during online classes * Gender of the respondent Crosstabulation

Attributes		Gender of the respondent	
		Male	Female
Do you get bore during online classes	Strongly Agree	50	70
	Agree	130	63
	Neutral	70	82
	Strongly Disagree	09	19
	Disagree	20	18

Table 4.4: Chi-Square Tests to assess the cross association between attributes

Test Statistics	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	4.018 ^a	4	.045
Likelihood Ratio	4.448	4	.349
Linear-by-Linear Association	.014	1	.905

In table 4.3, we computed the cross tabulation between Do you get bore during online classes & Gender (Male and Female) of the respondent. We evaluated the associations

between both attributes and tested the following Null hypothesis: There is no association between gender and income. Using the Chi-square test, the test statistic value is 4.018 with a p-value= 0.045 which is less than the level of significance. It shows that gender has strong bindings with getting bore in online classes. Similarly, we observe that Parents have strong contribute in developing the students online. The educated parents motivated their kids to learn more and more through online sources. Study showed that parents assisted their kids in following ways:

1. Availability of fast internet
2. Helped with time management
3. Displayed an optimistic outlook during online learning
4. Encouraged their kids to adapt their behavior to include internet learning
5. Financial assistance with the purchase of the necessary tools for online study.

VI. CONCLUSION

This research aimed to evaluate the parent's contribution towards their kids learning. On the basis of questionnaire filled from 400 respondents of different institutes, we observe that many students de tracked from their study and engaged in other activities. However, the students whose parents were educated, showed positive attitude towards learning and time management as compared to those students whose parents were not good in qualification. Research showed that educated parents helped their children in managing time and in changing the behavior of online learning. Moreover, we evaluated a gender based research and observed that female students showed comparatively more focus in learning as compared to male students. The results of chi-square also showed the cross tabulation in assessing the association between different attributes. Thus this research concludes that parent's commitment is more valuable in motivating their children towards online learning during the COVID-19.

VII. LIMITATIONS

Aside from this study, all of the others are subject to the same constraints. Because the COVID-19 pandemic had been put on hold, this research relied on a single technique to gather data. However, a mixed-method approach would have been more appropriate. Only two factors were estimated in this study, parental involvement and learner involvement. There could have been other elements that influenced the subject, such as other signs that contributed to young learners' commitment to online learning.

REFERENCES

- [1]. Aikens, N. L., & Barbarin, O. (2018). Socioeconomic differences in reading trajectories: The contribution of family, neighborhood, and school contexts. *Journal of Educational Psychology*, 100, 235-251. doi:10.1037/0022-0663.100.2.235
- [2]. Ahn, J., et al., (2013) 'Learner participation and engagement in open online courses: insights from the Peer 2 Peer University', *MERLOT Journal of Online Learning and Teaching*, vol. 9, no. 2, pp. 160-171. Available at: https://jolt.merlot.org/vol9no2/ahn_0613.pdf
- [3]. Antipkina, I.; Ludlow, L.H. Parental Involvement as a Holistic Concept Using Rasch/Guttman Scenario Scales. *J. Psychoeduc. Assess.* 2020, 38, 846-865.
- [4]. Bozkurt, A.; Jung, I.; Xiao, J.; Vladimirsch, V.; Schuwer, R.; Egorov, G.; Lambert, S.R.; Al-Freih, M.; Pete, J.; Olcott, D., Jr.; et al. A global outlook to the interruption of education due to COVID-19 pandemic: Navigating in a time of uncertainty and crisis. *Asian J. Distance Educ.* 2020, 15, 1-126.
- [5]. Boonk, L., et al., (2018) 'A review of the relationship between parental involvement indicators and academic achievement', *Educational Research Review*, vol. 24, pp. 10-30. doi: 10.1016/j.edurev.2018.02.001
- [6]. Davies, J. & Graff, M. (2015) 'Performance in e-learning: online participation and student grades', *British Journal of Educational Technology*, vol. 36, no. 4, pp. 657-663. doi: 10.1111/j.1467-8535.2015.00542.x
- [7]. Dube, B. (2020) 'Rural online learning in the context of COVID 19 in South Africa: evoking an inclusive education approach', *Multidisciplinary Journal of Educational Research*, vol. 10, no. 2, pp. 135-157. doi:10.4471/remie.2020.5607
- [8]. Driessen, G.; Smit, F.; Slegers, P. Parental Involvement and Educational Achievement. *Br. Educ. Res. J.* 2015, 31, 509-532. Available online: <https://www.jstor.org/stable/30032581> (accessed on 15 June 2021).
- [9]. Epstein, J.L. *School and Family Partnerships. Report No. 6; Center on Families, Communities, Schools & Children's Learning*: Baltimore, MD, USA, 1992; pp. 3-25. Available online: <https://eric.ed.gov/?id=ED343715> (accessed on 15 June 2021).
- [10]. Epstein, J. L. (1987) 'Parent involvement: what research says to administrators', *Education and Urban Society*, vol. 19, no. 2, pp. 119-136. doi: 10.1177/0013124587019002002
- [11]. Fajoju, S. A., Aluede, O. & Ojugo, A. I. (2016) 'Parental involvement as a correlate of academic achievement of primary school pupils in Edo State', *Nigeria. Research in Education*, 95(1), 33-43. <https://doi.org/10.7227/RIE.0023>
- [12]. Gunga, S. O. & Ricketts, I. W. (2017) 'Facing the challenges of e-learning initiatives in African universities', *British Journal of Educational Technology*,

- vol. 38, no. 5, pp. 896–906. doi: 10.1111/j.1467-8535.2006.00677.x
- [13]. Gilbert, B. (2015) Online Learning Revealing the Benefits and Challenges, Education Masters, Paper 303, Available at: https://fisherpub.sjfc.edu/education_ETD_masters
- [14]. Hrastinski, S. (2018) ‘What is online learner participation? A literature review’, Computers and Education, vol. 51, pp. 1755–1765. doi: 10.1016/j.compedu.2018.05.005
- [15]. Joshi, S. C. & Rose, G. (2018) ‘Information technology, internet use, and adolescent cognitive development’, in 2018 3rd International Conference on Computational Systems and Information Technology for Sustainable Solutions (CSITSS), IEEE. Bengaluru, India, 2018, pp. 22–28. doi:10.1109/CSITSS.2018.8768780
- [16]. Kearsley, G. & Shneiderman, B. (1998) ‘Engagement theory: a framework for technology-based teaching and learning’, Educational Technology, vol. 38, no. 5, pp. 20–23. Available at: malatwebspaces.royalroads.ca/rro0023/wp-content/uploads/sites/70/2018/12/Kearsley-1998-Engagementtheory-A-framework-for-technology-based-teaching-and-learning
- [17]. Kong, Q. Practical Exploration of Home Study Guidance for Students during the COVID-19 Pandemic: A Case Study of Hangzhou Liuxia Elementary School in Zhejiang Province, China. *Sci. Insigt Edu. Front.* 2020, 5, 557–561.
- [18]. Lawrence, K. C. & Nkoane, M. M. (2020) ‘Transforming higher education spaces: analysis of educational expectation factors among higher school learners in KwaDlangezwa’, *International Journal of Education and Practice (IJEP)*, vol. 8, no. 3, pp. 547–556. doi: 10.18488/journal.61.2020.83.547.556
- [19]. Liu, L. (2011). An international graduate student’s ESL learning experience beyond the classroom. *TESL Canada Journal*, 77–92.
- [20]. Ntekane, A. (2018) Parental Involvement in Education, A dissertation/thesis of North-West University Vaal vanderbijlpark, South Africa. doi: 10.13140/RG.2.2.36330.21440
- [21]. Sintema, E. J. (2020) ‘Effect of COVID-19 on the performance of grade 12 students: implications for STEM education’, *Eurasia Journal of Mathematics, Science and Technology Education*, vol. 16, no. 7, pp. 1–6. doi: 10.29333/ejmste/7893
- [22]. Tran, T., et al., (2020) ‘Toward sustainable learning during school suspension: socioeconomic, occupational aspirations, and learning behavior of Vietnamese students during COVID-19’, *Sustainability*, vol. 12, no. 10, p. 4195. doi: 10.3390/su12104195
- [23]. UNESCO. (2020, March 30). COVID-19 Webinar: A new world for teachers, education’s frontline workers. Marrë nga <https://en.unesco.org/news/covid-19-webinar-newworld-teachers-educations-frontline-work>
- [24]. Waters, L. H., Menchaca, M. P. & Borup, J. (2014) ‘Parental involvement in K-12 online and blended learning’, in *Handbook of Research on K-12 Online and Blended Learning*, pp. 403–422. Available at: <https://ndownloader.figshare.com/files/12212651>