Effectiveness of The Reach Out Program for Students During The Covid-19 Pandemic

Karma[1], Chador Tenzin[2], Tendel Tshering[3], Thinley Lhundup[4]

[1,2,3,4]Khamdang LSS, Ministry of Education and Skill Development

ABSTRACT

The purpose of this study was to assess the effectiveness of the reach-out program in supporting students during the COVID-19 pandemic. An explanatory sequential mixed method approach was employed, combining the collection of quantitative and qualitative data. Quantitative data was obtained through survey questionnaires administered to 50 students, while qualitative data was gathered from 10 students via semi-structured interviews. The study's results revealed that the reach-out program had a positive influence on students' learning experiences throughout the pandemic. Specifically, the program facilitated effective utilization of time for academic pursuits such as reading and writing. Nevertheless, the investigation also revealed that a lack of resources, including television, smartphones, and financial means, hindered students' capacity to learn from home. Based on these findings, it is recommended that the reach-out program be continued in the post-COVID-19 era to extend its reach to students who may have otherwise remained underserved. This study highlights the significance of providing support to students during crises like the COVID-19 pandemic, as well as the importance of addressing resource disparities that can impede students' learning opportunities.

Keywords: COVID-19, Reach Out Program, school, students, Bhutan

1. INTRODUCTION

The Reach-Out Program is a method of delivering education to students at their doorstep by their teachers. During the COVID-19 pandemic, students were required to study at home using various teaching media initiated by their teachers. However, many students were found to be reluctant to respond to their teachers regarding the assigned work. To bridge this gap, the Reach-Out Program was initiated as an innovative method to deliver education to every child, especially those who did not have access to modern means of learning, such as television, smartphones, and Google Classroom (Ministry of Education [MoE], 2020).

Through the Reach-Out Program, teachers deliver learning resources to every child in different locations and check the assigned tasks of the students, giving constructive feedback. The study focused on the following aspects during the COVID-19 pandemic:

✓ How students spent their time at home during the pandemic.
✓ The effectiveness of the Reach-Out Program for students during the pandemic.
✓ Factors that hindered students' learning at home during the pandemic.

The Reach-Out Program has been an effective method of ensuring continued education during the pandemic. However, it is important to identify and address the factors that hinder students' learning at home.

2. STATEMENT OF PROBLEM

The participating school is located in a rural area and caters to a diverse student population of 272. As a result of the COVID-19 pandemic, the school, along with all educational institutions in Bhutan, was closed from March 18th, 2020 (MoE, 2020). To ensure continuous learning amidst the pandemic, teachers implemented various teaching methods to facilitate remote studying for students. Regrettably, a considerable number of students displayed reluctance in engaging with their teachers regarding assigned tasks, and they exhibited reduced focus on academic work. Instead, they devoted their time to activities such as chatting, playing online games, and physical tasks.

Given the impact of the COVID-19 pandemic, teachers have recognized the importance of adopting innovative approaches to actively involve students in their academic pursuits. Consequently, in collaboration with the school administration, a reach-out program was devised with the primary objective of fostering students' well-being. This study seeks to assess the efficacy of the said program in supporting students during the COVID-19 pandemic within a rural school setting in Bhutan.

3. LITERATURE REVIEW
3.1 COVID-19 Pandemic and its impact on education

The World Health Organization (WHO) officially declared the coronavirus disease 2019 (COVID-19) outbreak as a global pandemic on March 12th, 2020. As a response, numerous countries worldwide implemented nationwide school closures by March 18th, 2020. In India, for instance, Raj (2020) highlights that schools were temporarily shut down, resulting in a significant education gap, despite the efforts of the central government to support e-learning and online education. Similarly, in African countries, learning institutions were closed during the second and third weeks of March 2020 (ADEA, 2020). A study conducted by Brown et al. (2020) in Australia disclosed that nearly half of the national student population faced potential risks to their learning and well-being due to the absence of in-person schooling. Similarly, in Bhutan, the COVID-19 pandemic led to the closure of all educational institutions starting on March 18th, 2020, as reported by the Ministry of Education (MoE, 2020). Extensive literature indicates that the global pandemic has significantly disrupted the educational systems across the world.

The global closure of schools has necessitated the adoption of innovative educational methods to ensure continued learning for students. In response to the COVID-19 pandemic, educators worldwide have conducted comprehensive studies on the efficacy of these innovative teaching approaches. For instance, Naciri et al. (2020) examined the use of mobile devices as learning tools and found that they enable flexible learning anytime and anywhere. Similarly, Ali (2020) and Naciri et al. (2020) highlighted the relevance of tools like Google Classroom and online learning in the current circumstances.

In Bhutan, the Ministry of Education (MoE) collaborated with the Royal Education Council (REC) and the Bhutan Council for School Examination and Assessment (BCSEA) had establish a new curriculum implementation approach to ensure educational resilience during the COVID-19 pandemic. Various platforms such as Google Classroom, e-learning through the Bhutan Broadcasting Service (BBS), and YouTube, as well as print media, were utilized to engage and provide education across the country (MoE, 2020). Additionally, Bhutanese teachers employed innovative methods to deliver education to their students. Some created WeChat groups as a medium for lesson delivery, while others personally visited students' homes to provide learning materials and guidance. Some teachers even made phone calls to their students to provide instructions on how to learn effectively at home.

3.2 Factors hampering students learning at home during the COVID-19 pandemic

A significant challenge encountered during the COVID-19 pandemic was the lack of learning resources available at home. Findings from the study conducted by Lee et al. (2020) indicated that one out of every four parents felt ill-equipped with the necessary resources to facilitate their children's education at home. The study site specifically had a notable proportion of disadvantaged students who faced multiple barriers to their learning. Particularly, low-income families were disproportionately affected by the pandemic, as their children did not have access to smartphones or televisions required to access educational broadcasts through such media.

COVID-19 has hampered educational services all around the globe. The study conducted by Farooq et al. (2020) in Pakistan found that the medical colleges faced challenges in providing quality education to their students during this prolonged period of lockdown due to a lack of faculty training and institutional support, internet connectivity issues, maintaining student engagement, online assessments, and problems with understanding the unique dynamics of online education. Likewise, the research conducted by Putri et al. (2020) reported that a lack of learning discipline at home, higher internet bills, less coverage of curriculum content, and a lack of technology skills hindered the potential of online learning in Indonesia. Further, Agung et al. (2020) found that the sustainability of internet connection, the accessibility of teaching media, and the compatibility of tools to access the media are the challenges faced during the COVID-19 pandemic. It is visible from the literature that the COVID-19 pandemic hampered students' meaningful learning all over the world.

3.3 What is the reach-out program?

The reach-out program serves as a mechanism for delivering education directly to students' homes. In this program, teachers personally visit students' residences, carrying the necessary resources and materials. They verify that the resources have reached the students, assess assigned tasks, address any misconceptions, and provide clear guidance and feedback to facilitate future improvement. Through this program, every student has the opportunity to engage in face-to-face interactions with their teachers, enabling concept clarification and the opportunity to showcase their work for evaluation and feedback.

3.4 What are Self-Instructional Materials (SIMs)?

The main purpose of developing the Self-Instructional Materials (SIMs) under the theme 'Reaching the Unreached' is to provide educational support to students residing in remote areas who have limited or no access to BBS (Bhutan Broadcasting Service) and the internet for e-learning lessons. The SIM packages are designed specifically to cater to the different grade levels and learning abilities of the students. The learning activities incorporated in the SIMs aim to encourage self-involvement and independent learning among the students while studying at home (MoE, 2020).

3.5 Advantages of delivering education at home

While there is limited existing literature on the specific advantages of delivering education at home, the COVID-19 pandemic has brought about unprecedented measures that have proven beneficial for students. The practice of visiting students' homes, providing educational resources, and delivering instruction has been found to have a significant positive impact, particularly for students whose families may have limited literacy skills. These educational resources have proven valuable for students who do not have access to online learning platforms, as well as for financially disadvantaged families. The

resources developed by the Ministry of Education and teachers have ensured that every student can continue learning something new every day from the comfort of their homes. This initiative has alleviated the burden on parents, while also engaging children in a meaningful manner. Additionally, the reach-out program has provided teachers with valuable opportunities to better understand and connect with their students in various aspects. Moreover, the reach-out program has created a conducive environment for students to clarify any misconceptions they may have and to learn new concepts directly from their teachers. This personalized approach to education delivery has proven to be highly beneficial for students' learning and overall academic development.

4. METHODOLOGY

For this study, the researcher employed an explanatory sequential mixed methods approach, following the methodology outlined by Creswell and Creswell (2018). The research design involved conducting quantitative research initially, analyzing the results, and subsequently providing a more in-depth explanation through qualitative research. The quantitative data were collected from a sample of 50 sample students randomly selected from grades five to eight. These participants completed survey questionnaires both before and after the implementation of the reach-out program, which served as the intervention strategy in this research. Descriptive analysis techniques, such as frequencies and graphical representation, were utilized to describe and elucidate the quantitative data in a meaningful manner.

In addition, qualitative data were gathered from a subset of 10 students through semi-structured interviews. Thematic analysis, as described by Creswell and Creswell (2018), was employed to analyze the qualitative data. This involved identifying and exploring recurring themes and patterns within the students' responses. Finally, the findings obtained from the quantitative data were further elucidated and contextualized using the insights gained from the qualitative data analysis. This sequential approach allowed for a comprehensive understanding of the research topic by integrating both quantitative and qualitative findings.

5. DATA ANALYSIS AND RESEARCH FINDINGS

Data Analysis was done purely based on the information collected through closed-ended survey questionnaires and semi-structured interviews.

5.1 How do students spend their time at home during the COVID-19 pandemic

The first objective of the study was to **find out how students spend their time at home during the COVID-19 pandemic.** Table 1 shows the average time spent by 50 students in a day during the baseline test and post-intervention test respectively.

Table 1

Average time spent by 50 students in a day.

Sl. No.	Activities		Average time spent by 50 students in a day			
			Before Intervention		**After Intervention**	
1	Helping parents	Household chores	106 minutes	219 minutes	124 minutes	262 minutes
		Physical work	113 minutes		138 minutes	
2	Academic	Reading	96 minutes	222 minutes	116 minutes	281 minutes

	purposes	Writing	126 minutes		165 minutes	
3	Social media	Browsing internet	122 minutes	298 minutes	64 minutes	207 minutes
		Watching Television	119 minutes		98 minutes	
		Chatting with friends	57 minutes		45 minutes	
4	Leisure activities	Listening music	43 minutes	237 minutes	41 minutes	172 minutes
		Online line games	52 minutes		43 minutes	
		Unknown Activities	142 minutes		88 minutes	

Before intervention

Table 1 shows that on average 50 students spent around 219 minutes helping their parents and 281 minutes for academic purposes. Table 1 also indicates that on average 50 students spend 298 minutes on social media and 237 minutes in leisure activities.

After intervention

Table 1 shows that on average 50 students spent around 262 minutes helping their parents and 222 minutes for academic purposes. Table 1 also indicates that on average 50 students spend 207 minutes on social media and 172 minutes in leisure activities.

5.2 Effectiveness of the reach-out program for students during the COVID-19 pandemic.

The second objective of the study was to *investigate the effectiveness of the reach-out program for students during the COVID-19 pandemic.* Students' responses to the six statements are given below in the form of a graphical representation.

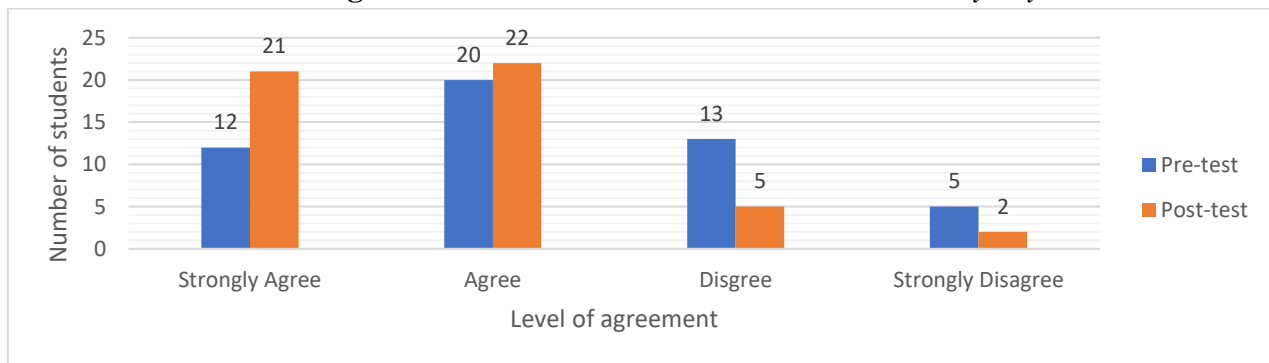**Figure 1** *Statement 1: I read as much as I can every day*

Figure 1 visually represents the level of agreement with statement 1. Notably, there is an observable upward trend in the degree of agreement after the implementation of the intervention. Specifically, the sample students' reading habits demonstrated an increase, suggesting the effectiveness of the reach-out program in promoting and improving their reading practices.

Figure 2

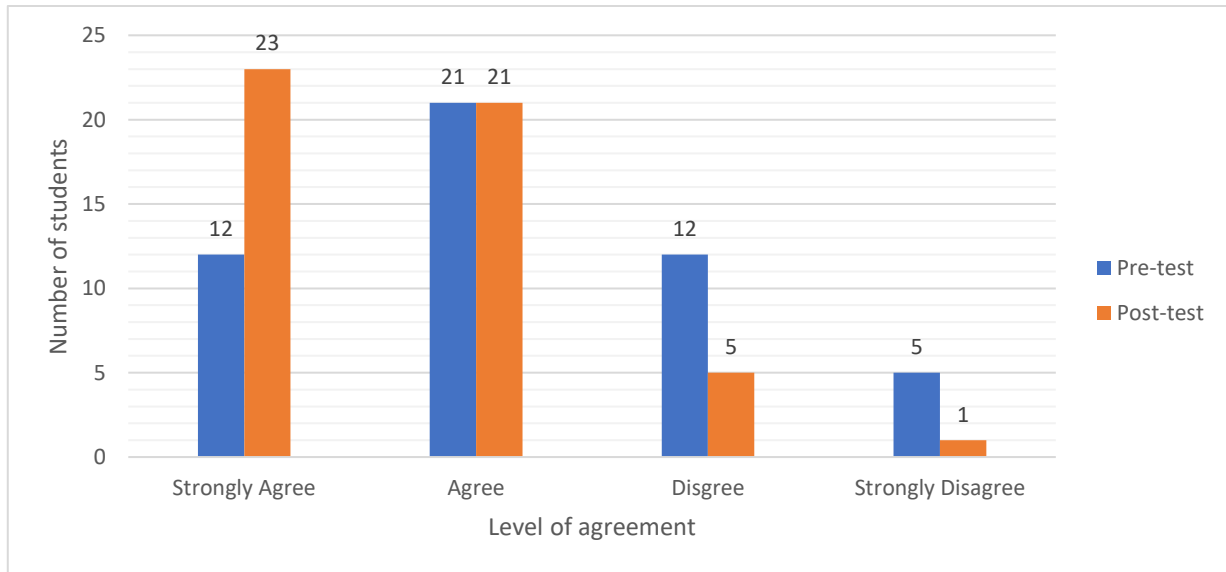*Statement 2: I do assign work on time*

Figure 2 illustrates the level of agreement with statement 2. The graph clearly demonstrates that the number of respondents who agreed with the statement significantly increased following the intervention. This finding suggests that the intervention had a positive impact on the participants' perception or attitude related to the given statement.

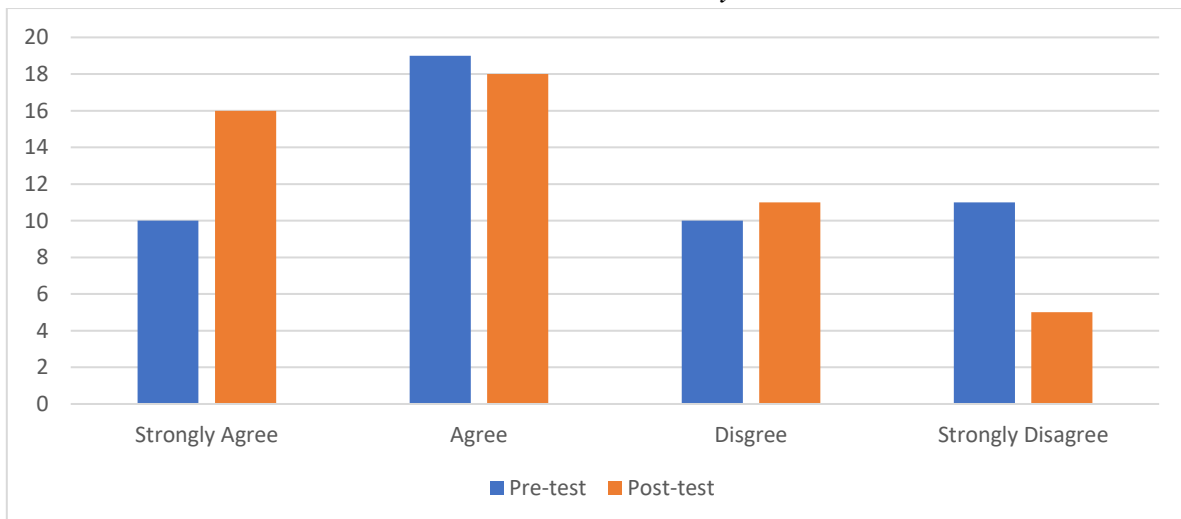**Figure 3**

Statement 3: I ask doubt to my teachers

Figure 3 displays the degree of agreement with statement 3. The graph clearly indicates a notable increase in the number of students seeking clarification from teachers after the intervention. This finding suggests that the intervention had a positive effect in encouraging students to actively engage with their teachers and seek assistance when they have doubts or questions.

Figure 4

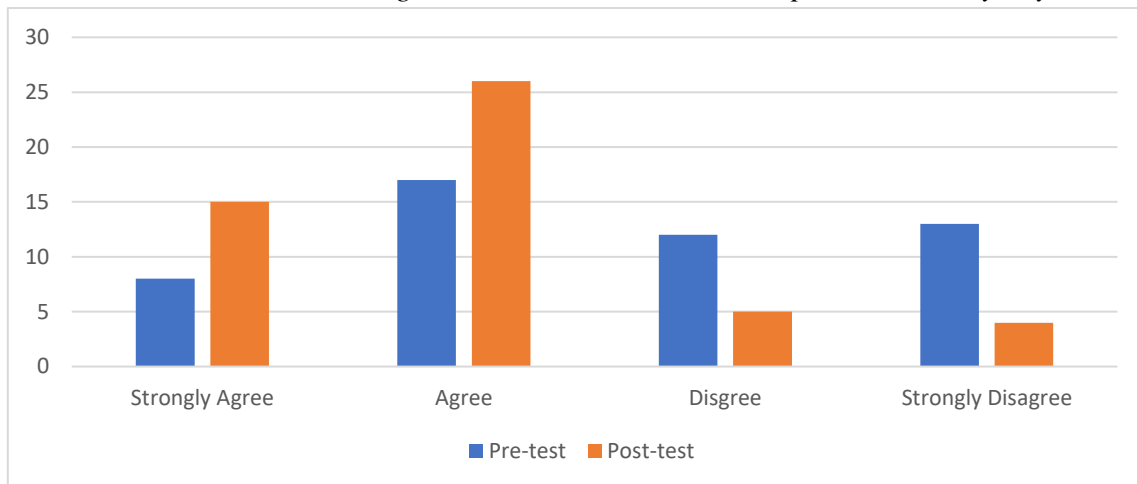*Statement 4: I use Google Classroom and Class Group WeChat every day*

Figure 4 presents the degree of agreement with statement 4. The graph demonstrates that a significant number of students increased their usage of Google Classroom and class group WeChat after the intervention. The majority of respondents agreed with the given statement, indicating that the intervention effectively encouraged students to utilize these platforms for their learning purposes.

Figure 5

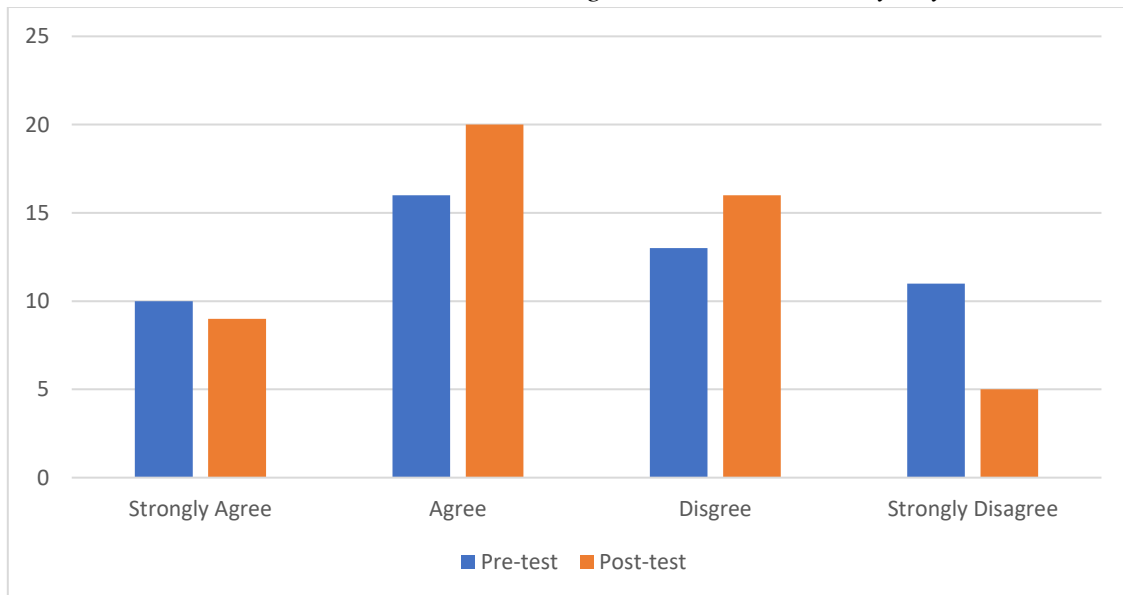*Statement 5: I watch E-learning Lessons on BBS every day*

Figure 5 displays the level of agreement with statement 5. The graph indicates a noticeable increase in the number of students watching E-learning lessons on BBS (Bhutan Broadcasting Service) after the intervention. This finding suggests that the intervention had a positive impact in motivating students to access and engage with educational content through the BBS platform.

Figure 6

Statement 6: I do all the activities from the e-learning lesson on BBS
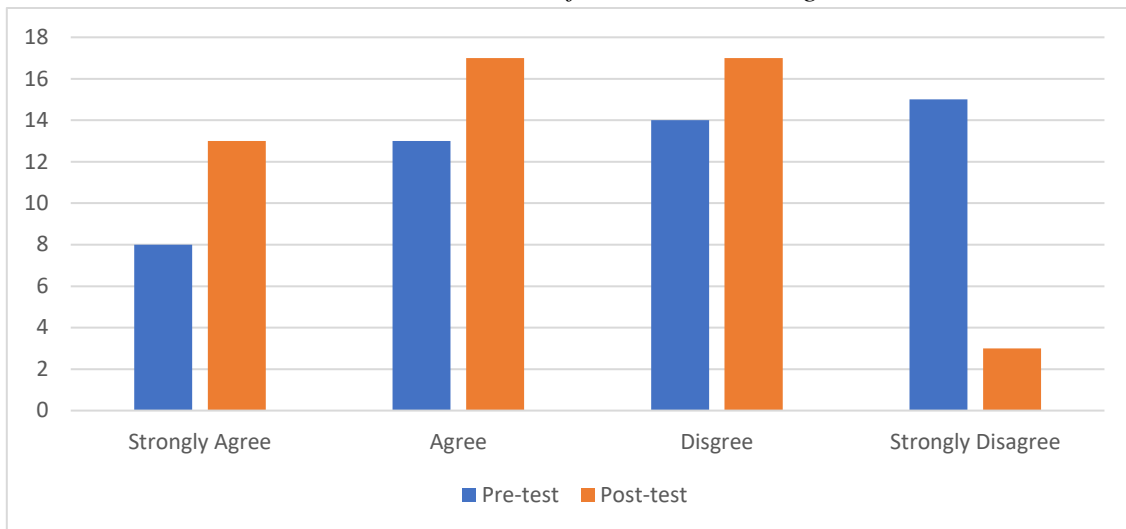

Figure 6 depicts the level of agreement with statement 6. The graph reveals that initially, a majority of the students were hesitant to engage in the activities from the e-learning lessons on BBS. However, after the intervention, there was a noticeable increase in the number of students actively participating in the activities associated with the e-learning lessons on BBS. This finding suggests that the intervention played a crucial role in motivating students to overcome their initial reluctance and actively participate in the activities provided through the e-learning platform on BBS.

5.3 Factors affecting students learning during the COVID-19 pandemic

The third objective of the study was to investigate *factors affecting students learning during the COVID-19 pandemic.* The researcher employed semi-structured questions to collect the data from the selected students.

Generally, findings revealed that the participants had positive attitudes towards the Self-Instructional Materials [SIM] distributed by the teachers during the reach-out programs. The students valued it as the main source of learning though some felt it was difficult to comprehend at once. The students sought help from the senior students to understand the concepts. For example, P1 stated "SIM is only my source of learning at home. It is understandable compared to textbooks and other resources." Likewise, P8 also stated, "The SIM is a helpful resource, although some of the concepts are difficult to understand. However, it is s better than a regular textbook. What makes it even more convenient is that all subjects are combined into a single booklet." The findings suggest that the SIM distributed during the reach-out programs was highly valued by the students and played a significant role in facilitating their learning, despite some initial challenges with comprehension.

The semi-structured interview also revealed that resources like television, smartphones, reading materials, and finances were the factors that affected students learning at home during the pandemic. For instance, P1 shared, "I don't have a television, so I can't access the online lessons broadcasted through BBS." P2 mentioned, "Data consumption is too high, and my parents cannot afford to buy a data package." P9 expressed, "My parents don't own a smartphone, which makes it impossible for me to access the lessons on Google Classroom." The findings highlight specific challenges faced by the students. These individual experiences shed light on the barriers some students face in accessing remote learning resources, demonstrating the need for alternative solutions to ensure equal educational opportunities for all students.

Additionally, the study findings indicated that the interviewed participants expressed a strong desire to return to regular classroom learning at school. They expressed their hopes and prayers for the pandemic to come to an end soon. Household chores and a lack of resources at home were cited as factors that made them appreciate the school environment. P7 specifically mentioned, "I enjoy going to school because I don't have a television or smartphone at home to facilitate my learning. I have to rely on my friends to stay informed about the instructions provided by teachers in Google Classroom." The statements highlight the participants' longing for the school environment due to the limitations they face at home, including the lack of necessary devices for online learning. The participants express a preference for the school setting, where they have access to resources and direct communication with teachers and peers.

6. DISCUSSION

The findings indicated that the reach-out program was effective in ensuring the children used their time productively at home during the lockdown. For instance, the average time spent by 50 students on useful activities like helping parents and time used for academic purposes has been increased while time used on social media and leisure activities has been reduced after the intervention. This observation depicts the effectiveness of the reach-out program during the pandemic.

The findings of the study also revealed that, on average, there was an increase in the number of students who spent more time reading books after the implementation of the reach-out program. Similarly, there was an increase in the number of students who completed assigned tasks on time. Additionally, there was an observed increase in the number of students seeking clarification from teachers by asking questions. The survey questionnaires also indicated that a significant number of students utilized Google Classroom and WeChat for academic purposes after the intervention. Furthermore, there was an increase in the number of students watching E-learning lessons on BBS and actively participating in the associated activities. Overall, these findings highlight the positive impact of the intervention on various aspects of student behavior and engagement. There were improvements in reading habits, task completion, interaction with teachers, and the utilization of online platforms for learning purposes.

The findings of the study also indicated that all the participants held positive attitudes towards the SIM distributed by the teachers during the reach-out programs, considering it as their main source of learning. This underscores the notion that students' learning has been disrupted by the ongoing pandemic. This aligns with the research conducted by Brown et al. (2020) in Australia, which revealed that a significant portion of the national student population is at risk of experiencing significant learning and well-being challenges due to the absence of in-person schooling.

The study revealed that the lack of resources such as televisions, smartphones, reading materials, and financial constraints significantly impacted students' learning at home during the pandemic. Similar findings were reported by Farooq et al. (2020) in Pakistan and Putri et al. (2020) in Indonesia. Additionally, Agung et al. (2020) identified challenges related to internet connectivity sustainability, accessibility of teaching materials, and compatibility issues with tools for accessing educational media, all of which hindered online learning during the COVID-19 pandemic. Furthermore, the study conducted by Lee et al. (2020) revealed that one in four parents felt they lacked the necessary resources to effectively educate their children at home. These collective findings emphasize the common obstacles faced by students and parents worldwide in terms of limited resources and access to technology, which have significantly impacted the ability to engage in remote learning during the pandemic.

7. CONCLUSION

During this research, the researcher uncovered intriguing insights that contributed to the implementation of the reach-out program amid the COVID-19 pandemic. Firstly, the findings revealed that the reach-out program had a positive impact on students' learning outcomes. Secondly, the findings indicated that the reach-out program effectively facilitated students in utilizing their time more productively for academic pursuits, such as reading and writing. Thirdly, the study revealed that the use of SIMs empowered students to engage in self-directed learning. Lastly, the research findings highlighted that the lack of resources, such as televisions, smartphones, reading materials, and financial constraints, posed significant challenges to learning at home during the COVID-19 pandemic.

The researcher strongly recommends the continuation of the reach-out program to reach out to students who have been unable to access education during the COVID-19 pandemic. However, it is important to note that this recommendation is based on the analysis of data collected from a sample of 50 respondents. Therefore, future researchers are encouraged to enhance this research by including a larger number of respondents. This would allow for a more comprehensive and representative analysis, leading to more robust and reliable findings

8. REFERENCES

1. Agung, A. S. N., Surtikanti, M. W., & Quinones, C. A. (2020). Students' perception of online learning during COVID-19 pandemic: A case study on the English students of STKIP Pamane Talino. *SOSHUM: Jurnal Sosial Dan Humaniora*, *10*(2), 225-235.
2. Ali, W. (2020). Online and Remote Learning in Higher Education Institutes: A Necessity in light of COVID-19 Pandemic. Higher Education Studies; Vol. 10, No. 3; 2020.
3. Association for the Development of Education in Africa [ADEA]. (2020). *Delivering education at home in African member state amidst Covid-19 pandemic: A country status report.* Africa: Abidjan.
4. Naciri, A., Baba, M. A., Achbani, A., & Kharbach, A. (2020). Mobile Learning in Higher Education: Unavoidable Alternative during COVID-19. *AQUADEMIA, 4(1), ep20016*.
5. Brown, N., Te Riele, K., Shelley, B. & Woodroffe, J. (2020). Learning at home during COVID-19:
6. Effects on vulnerable young Australians. Independent Rapid Response Report. Hobart: University of
7. Tasmania, Peter Underwood Centre for Educational Attainment.
8. Creswell, J. W., & Creswell, J. D. (2018). *Research design: Qualitative, Quantitative, and Mixed Methods Approach* (5th ed.). SAGE
9. Farooq, F., Rathore, F. A., & Mansoor, S. N. (2020). Challenges of online medical education in Pakistan during the COVID-19 pandemic. *J Coll Physicians Surg Pak*, *30*(6), 67-9.
10. Lee, S.J., Ward, K.P., & Chang, O.D. (2020, September). Research brief: Parents' perceptions of the shift to home-based education during the Covid-19 pandemic. Ann Arbor, MI: the University of Michigan Parenting in Context Research Lab. Retrieved from: https://bit.ly/2Ra5Q2R
11. Ministry of Education (MoE). (2020). *Guidelines for Curriculum Implementation Plan for Education in Emergency (EiE).* Thimphu: Royal Education Council (REC).
12. Raj, U. (2020). INDIAN EDUCATION SYSTEM IN THE FIGHT AGAINST COVID-19PANDEMIC. *Galgotias University*
13. Putri, R. S., Purwanto, A., Pramono, R., Asbari, M., Wijayanti, L. M., & Hyun, C. C. (2020). Impact of the COVID-19 pandemic on online home learning: An explorative study of primary schools in Indonesia. *International Journal of Advanced Science and Technology*, *29*(5), 4809-4818.