



COPE UP WITH POST-PANDEMIC ERA: A ROAD MAP FOR STAKEHOLDERS OF EDUCATION SYSTEM

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RESEARCH ARTICLE



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Abstract

In this digital era quality improvement of education is very challenging, like to ensure education for all, to retain the learners in the field of education in every spare; remove inequality among the learners and so on. It is well established that during the pandemic situation, the education system of the whole nation was about to collapse and the stakeholders were trying to find a road map to cope with the situation. The insightful thinking and researches of the stakeholders were at last find out the amicable solutions to continue the teaching learning process. They discovered various teaching learning procedures like online mode, blended mode, hybrid mode and so on. But as a developing country we were unable to cope with this system every time because of infrastructure, peculiar economic conditions, insufficient internet facilities, lack of digital devices etc. As a result, the rate of school dropout, spending time in the education sector, and poor results was increasing day by day. So, in the present study the researchers introduced a road map for the entire education system with highlighting the challenges and cope up strategies after covid-19. And by this study, the researchers try to contribute in effective policy planning, decision making and curriculum development. This study will further help to identify and select innovative teaching strategy and capacity building of the stakeholders to cope up with the present educational scenario. The present study is basically a review-based study where the researchers followed a qualitative research approach depending upon the nature of research questions and objectives. To fulfil the objectives of this study the researchers used the exploratory and descriptive research design. In this present study the researchers followed a semi-systematic literature review method for the purpose of the data analysis of the related literature. And the data have been gathered from various primary and secondary sources like websites, textbooks and journals for the purpose of content analysis of this study.

Keywords: *Post-pandemic Era, Learning Challenges, Coping Mechanism, Digital divide, Learning strategy, Student Support*

Introduction

Suddenly in December, 2019 covid-19 has begun to spread. At First the virus was identified in Wuhan city of China (WHO, 2020). In a short period of time the virus transmits rapidly among the peoples, and then gradually spread out among the various countries in the world (Mahyoob, 2020). Because of the widespread of this critical virus, people of all countries were at risk of death threats (Tarkar, 2020; Batubara, 2021). People were instructed to stay at home, all social activities and interaction among the peoples were prohibited, and all parks, restaurants, cinema halls, museum, hospital and schools were shut down (Mahyoob, 2020). Transportation services like trains and aircraft between various countries and local regions had been turned off. For all of this the whole society has been affected. So, students across the globe were also at risk. As a result of this condition every state shutdown the education system (Daniel, 2020). WHO declared a pandemic situation in March 2020. Every state was also declared an emergency situation. The education system of the whole nation was about to collapse (Rulandari, 2020) and the stakeholders were trying to find out a road map to cope with the situation. The insightful thinking and researches of the stakeholders were at last find out the amicable solutions to continue the teaching learning process. They discovered various teaching learning procedures like online mode, blended mode, and hybrid mode and so on (Mahyoob, 2020). But this covid-19 pandemic leads to widespread social, economic as well as educational challenges (Efriana, 2021). After the covid-19 period various challenges are being faced by pupils in various fields of education. So, in this study the researchers are interested to find out the impact of covid-19 pandemic on global education systems as well as the challenges being faced by stakeholders of the education system and also propose the coping mechanism and strategies to deal with the challenges in the post pandemic educational environment.

Background of the Study

During this pandemic situation the educational process was continued online by various virtual platforms in the forms of blended learning, hybrid learning and so on (Mahyoob, 2020). But this online learning needs various electronic gadgets and internet facilities (Efriana, 2021). Some of the economically established family adapted the technology and adjusted with the situations and Students had been habited in this online teaching-learning environment, but in the other hands pupils belong from economically and sociologically disadvantages family had not familiars with the digital literature and technological support, so, pandemic situation made a digital divide among the pupils (khan & mohakud, 2020). And as result students are suffering in various problems till now such as Knowledge gaps among the pupils, Increase the dropout rate of the learners, students are losing the interest and motivation towards schools and so on (Batubara,2021). So, in this context the researchers want to study comprehensively the impact covid-19 on the global education system as well as the challenges being faced by the pupils and educators in post pandemic circumstances and also try to find out coping mechanisms and strategies for the stakeholders of education.

Rationale of the Study

The rationale of the study refers to the importance and contribution of study. In the field of education, the contribution of this study is very significant because the world-wide educational system rapidly shifts from face-to-face offline mode to virtual mode by the influence of pandemic situations. Most of the institutions adopted technology to meet the challenges. But this adaptation creates a digital divide among the learners and the learners from the under-developing regions of the world are facing challenges. So,

- This study will fill the research gap between pre-pandemic and post pandemic era's educational challenges like mental health issues, removing social isolation.
- Most of the pandemic research focuses on the immediate effect of Covid-19. So, there is a need for developmental study of pandemic situations.
- The study will examine the various coping strategies and mechanisms for stakeholders to understand the problem.
- This study will also help policy makers and stakeholders to make appropriate decisions.
- The findings of this study will give insightful information which provides an actionable situation.
- This research is necessary for shaping our future of education in the post pandemic era.

Statement of the Problem

In December, 2019 covid-19 had been identified in Wuhan city of China. This virus transmits rapidly among the peoples and various subcontinents. So, all social activities and interaction among the peoples were prohibited, all parks, restaurants, cinema halls, museums, hospitals and schools were shut down. In this situation the education system was about to collapse. At last insightful thinking and research of the stakeholders find out the amicable solutions to continue the education system like online mode, blended mode and so on. But after the pandemic various challenges occurred in the educational field. But Most of the research papers and articles regarding pandemic situations are investigated immediate effect of covid-19. But in reality, somehow educational systems suffered every sphere like- learning gap among the learners, lack of virtual literature, digital divide among the pupils, mental problem of stakeholders and so on in post pandemic era. So, in this study the researchers try to identify those challenges and explore the coping strategy and mechanism for addressing those challenges. So, the problems of this research are what is the effectiveness of covid-19 on the global education system? What are the challenges that occur in a post pandemic educational environment? How to bring back the dropout children in the mainstream education system? How do learners adjust with the post era of covid-19? How to cope with the post-pandemic era? The researchers need to study. So, to explore the answers of the above not addressing questions, the researchers propose the problem of the present study as "Cope up with Post-Pandemic Era: A Road Map for Stakeholders of Education System"

Objectives of the Study

- O₁:** To explore the effect of covid-19 pandemic on the global education system.
- O₂:** To analyse the various challenges faced by students in the post pandemic era.
- O₃:** To investigate the coping strategy and mechanism for students in post-pandemic.

Research Questions

- How is the global education system affected by COVID-19?
- What challenges are being faced by students in the Post-Pandemic Era?
- What strategies should be followed by the stakeholders to cope up with the post-Pandemic Era's Education System?

Methods and Materials

This research is basically a review-based study where the researchers used a content analysis method for the comprehensive understanding of this topic. For the purpose of intensive understanding of the study the researchers followed the semi-systematic literature review methodology, where the researchers used various sources of data such as journals, textbooks, and websites. In this research the researchers effectively explore, analyse and synthesize the collected data related to the field of pandemic issues of the education system for the completion of the objectives of this study.

Research Design

For the purpose of this study, the researchers have followed a qualitative research approach. And the researchers used the exploratory and descriptive research design for exploration of effectiveness and challenges of covid-19 in the post pandemic era as well as to explore the overcoming strategies.

Data Source: All those types of documents which are directly and indirectly related to effect, challenges and coping strategy of covid-19 in post-pandemic perspective are considered for data sources of this study. For this research the data has been gathered from both primary and secondary sources.

Where primary data include various policy documents and governmental reports such as:

- UNESCO report 2021: Education in a post-COVID world: Nine ideas for public action.
- UNICEF report 2022: COVID-19 and education: The lingering effects on children and youth.

Secondary data sources include various research papers, books and articles which are considered by the themes:

- The effectiveness of Covid-19 on the global education system.
- Challenges and barriers faced by students and educators in the post pandemic era.
- Coping mechanisms and strategies to meet the challenges.

Sampling Technique: In this study the researchers used purposive sampling technique to select the data and documents which are most relevant to the research questions. The selections of the data and documents based on the criteria--

- Related policy, documents and literature related to effectiveness of covid-19 pandemic.
- Emphasis given on the challenges faced by students and teachers in the post pandemic era.
- Related to coping mechanisms and strategies to meet the challenges in the post pandemic era.

Data Collection: In this study the researchers collected data from various databases such as Google scholar, ERIC, PsyINFO, Scopus, Web of science, researchGate and relevant reports and publications from Governmental websites. The range of these gathered data is from 2008 to 2024 which are directly and indirectly related to the objectives and research question of this study. For data gathering purpose the following terms have been used---

- ❖ “Effectiveness of covid-19.”
- ❖ “Learning Challenges of post pandemic era”
- ❖ “Coping strategies and mechanisms.”

Data Analyze: To identify the common concept, theme, effect, challenges, coping strategies and challenges for various sources of data and documents were coded and categorized in various forms for the purpose of the content analysis. The collected data has been analyzed using the content analysis method. The content analysis method is being used to identify key themes and patterns focusing on the major three areas:

Effectiveness: effect of covid-19 on global education system

Challenges: challenges faced by students and teachers in the post pandemic era.

Coping mechanism and Strategy: coping mechanism and strategies for overcoming the challenges and barriers of the post pandemic era.

Discussion and Findings of the Study

The researcher stated the Discussion and Major findings of the study in three parts. Which are

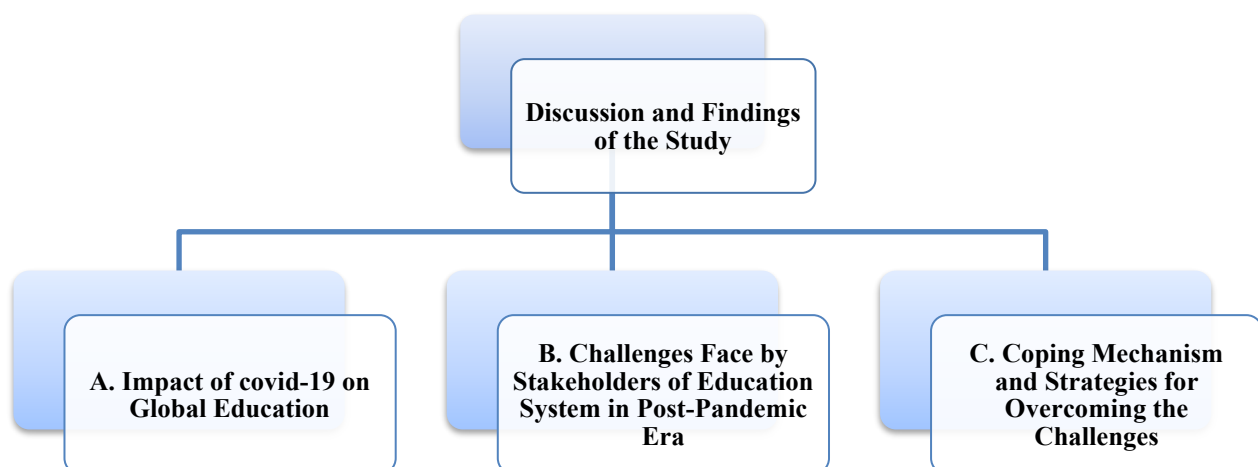


Fig. 1: Analytical Framework of the study

A. Impact of covid-19 Pandemic on Global Education System

The Covid-19 pandemic had an extreme impact on the global education system like the learning gap among the learners, digital divide, socio-economic interaction, transformation of teaching learning practice, change of pedagogical practices etc (khan & mohakud, 2020; Rulandari,2020). So, the impact of covid-19 pandemic on global education system are explored by the study are:

Learning loss: Before pandemic learners continued their learning in regular face to face mode where pupils were able to clear doubts about the topic taught by the educators. There was a huge opportunity for interaction among the students and teachers. But in covid-19 time the learning environment shifted to virtual mode learners were trying to adjust with the situation. But in reality, lack of virtual literature among the learners, lack of digital devices, internet facilities, improper schedule, and especially lack of interaction are hampering the teaching learning process which leads to the learning loss among the learners.

Increase the Dropout rate: After the pandemic, pupils are unable to relate their knowledge with previous concept and learning. Most of their peers and friends left the school and join in family responsibly. Some teachers are transferred to another school. So, they lost their friends and teacher in covid-19 pandemic. That's why they are losing their interest and motivation in education which leads to increase the dropout rate of children in various schools across the globe especially in developing countries.

Adaption of blended and Hybrid learning: To adjust with the immediate pandemic challenges most of the educational institutions follow the blended learning model and most of the universities are going to follow the hybrid learning also. This hybrid learning changes the learning strategies, research process and teaching technique and pedagogical process.

Digital Divide among the learners: All the pupils in the world are not familiar with digital devices and everybody is not able to afford the cost of technology. So, lack of digital literature and not access to various electronic gadgets, lack of internet accessibility made a digital divide among the learners.

Leads Inequality: Some of the students belong from economically stable families, who are able to access everything like electronic gadgets, internet connection, so during the pandemic they were adjusted with the virtual environment. On the other hand, some students are from economically disadvantaged backgrounds who are unable to afford the cost of technology, electronic gadgets, internet connection. So as a result, digital divide leads to inequality among the learners.

Lack of nutrition and impact on health: Now in most of the developing countries schools are not only a source of academic knowledge but another source of food and nutrition especially for conceived mothers, babies and new born children. So, in India children are taking food and nutrition up to elementary school level. But during the pandemic, the immediate shutdown of the education system disrupted the source of food and nutrition which had an impact on the health of children.

Increase the child labour: Most of the dropout pupils are joined as working children in various fields across the globe for economical and sociological support of their family. Most of them are children. So, increase of child labour in pandemic situation is causes of headaches for the developing countries to produce and preservation of human resources without the education of children in school environment.

Increase the parental involvement: During the pandemic students spent most of the time at home. So, the involvement of the parents increases in the teaching learning process. So, parents are involved in the pedagogical process also. But sometimes this involvement contradicts with the educators and causes some problems.

Impact on pedagogy and teachers: Teachers across the globe adapted the technology during the pandemic without any consideration and training about digital teaching methodologies and technology. This adaptation changes the teaching methods and the pedagogy of learning. So, another impact of covid-19 on the global education system is that impact on teachers and pedagogical changes.

B. Challenges Faced by Stakeholders of the Education System in the Post-Pandemic Era

Stakeholders of the education system are majorly divided into two parts. One is primary stakeholders like students, teachers and researchers; another is secondary stakeholders who are administrators, family, mass education agency, policy maker and implementer. Both stakeholders are facing various types of challenges in the field of education in the post pandemic era (Efriana,2021; Mahyoob,2020). The major challenges faced by stakeholders explored by the researchers are...

Low rate of attendance: During pandemic students lose their peers, friends and teachers. And they are habituated to online virtual learning environments. But after the pandemic situation students are losing their interest and motivation in a face-to-face learning environment. So, they are demonstrating a negative attitude towards the schools and education. So, the post covid-19 era decreased the rate of attendance among the learners. So, teachers are facing challenges to deal with the irregular classroom environment of the learners.

Prefer to work as Child labour: After the pandemic children and parents are preferred to use the human resources as child labour instead of sending theirs to educational institutes because the lack of interest about education, high rate of unemployment and so on.

Lack of digital literacy: In the post pandemic era students and teachers prefer blended and hybrid modes for learning. Various online platforms and apps are being used for webinar, conference and seminars blended mode. But lack of virtual literacy and knowledge of operating electronic gadgets among the students and teachers hinder the teaching learning process.

learning gap and Lack of adjustment with previous concept: During the pandemic most of the time students stayed at home and they are being deprived from the formal learning environment. Thus, now the students demonstrate the lack of adjustment with the previous concept and learning. So, the main challenge in post-pandemic era's education is to address the learning gap and adjustment of the learning concept with previous concepts among the learners.

Decrease the span of attention: During the pandemic students were at home for a long time and they lost their patients due to lack of cooperation and collaboration with parents, friends, teachers and peers. So, they choose social media to know about the regular news and activities of peers and friends, they engage in scrolling the short videos and become bored. So, the span of attention decreases among the learners. That is why now they are unable to concentrate in the classroom because of addiction on social media.

Resistance to change: Pandemic circumstances teach us to deal with immediate problems and adaptation of technology for teaching learning processes. But the majority of the students, teachers, researchers, educators, administrators and policy makers prefer to follow the traditional teaching learning process. Most of the stakeholders deny adjusting with the changing educational environment like to integration of technology, electronic gadgets in education. So resistance to change and integration of technology is one of the challenges in the post pandemic era of education.

Mental health issues: During the pandemic isolation from the peer groups, teachers and friends increase the stress, anxiety, and depression among the pupils. So, this type of mental health problem and issues hamper the teaching learning process of post pandemic situations.

Decrease the reading habits: During the pandemic most of the time students were active in various social media and virtual platforms for their entertainment and education also. So, learners are habituated in social media during the pandemics and this trend is going on till now, which is another cause of decreasing the reading habits among the learners.

Problem related to students' engagement and motivation: In the report, the majority of educational institutions demonstrate that students are losing their interest and motivation in education after the pandemic. So, engaging and motivating the students in the post pandemic era of education is very challenging.

Classroom management problem: During the pandemic students and teachers stayed far away from the face-to-face formal teaching learning procedure. So, the stakeholders were habituated to a shifted online teaching learning environment. And this long-time distance from face to face offline learning mode made stakeholders learn new and changing pedagogical procedures of teaching-learning environment in virtual form. But after the pandemic, coming back to the face-to-face offline learning mode became barriers because the problems dealing with the newly adapted behaviours of the learners and understanding the attitude of pupils is challenging. So, classroom management is one of the biggest challenges in the post pandemic era of education.

Challenges of equitable and inclusive education: During the pandemic some students and educational institutions adapted the technology with virtual environments, but in other ways some students and educational intuitions were unable to carry out the cost of technology, electronic gadgets and internet connection; so those stakeholders and educational institutions are being deprived from the advantages of online teaching learning procedures. Thus, pandemic situations made a digital divide among the stakeholders and institutions. This digital divide, lack of electronic gadgets, internet connection and technology lead to an inequality among the learners. So, if there is inequality in education it would be very challenging for educators to make an inclusive classroom and learning environment in the post pandemic era.

Challenges of assessment and evaluation: During covid-19 circumstances the students, teachers and educators learn how to cope with immediate teaching learning challenges. And also learn about to use various electronic gadgets and virtual learning environment to operate the blended and hybrid learning mode. So, the pedagogical procedures of teaching learning situations shift to an online environment. But in traditional teaching-learning environment blended or hybrid mode of assessment procedure is not suitable. So, the assessing and evaluating the learners in blended mode is challenging for the post pandemic era of education.

C. Coping Mechanism and Strategies for Overcoming the Challenges

It is well established that covid-19 has a significant impact on the global education system and for this reason students, teachers, administrators are facing various types of challenges in the post pandemic era of education which have been explored by the researchers mentioned above. But as learners, teachers, administrators and policy makers if you ignore the challenges, sustainability of educational goals will not be achieved easily. So, by considering the challenges the researchers propose the coping mechanisms and strategies which have been explored by this research (Ewiss, 2021; Tarkar,2020). So, those coping mechanism and strategies proposed by the researchers for overcoming the educational challenges of post pandemic era are

Building Relationships: Relation building is the first and one of the most effective ways to overcome any type of challenges. Relationship among the stakeholders like Teachers-Teachers, Student-Teachers, Administrator-Teachers-Students relationship is being hampered during pandemic. So, to cope with the challenges of post-pandemic era's education, at first stakeholders need to build rapport building with each other and understanding the educational problem, issues and challenges of each other.

Bridging the learning gaps: It is seen that in the post pandemic era of the educational environment, students are unable to adjust and connect the knowledge with previous concepts and learning. So, the learning gap and loss is the most challenging in the post pandemic era. To deal and address these problems stakeholders need to bridge the learning gap by one-to-one interaction, and taking remedial and extra classes.

Flexible Learning: Flexible learning environment and attitude of stakeholders helps to deal with any type of learning challenges. So, to cope with the post pandemic era's education stakeholders have to follow the flexible learning environment and foster flexible attitude towards the students also.

Self-paced Learning: Giving the learners enough space and motivating for self-learning. This encouragement of self-learning should give the opportunities to fulfil the learning gaps among the learners.

One-on-one Tutoring: The learning gap among the learners in the post pandemic era found significantly. So, to remove the learning gap among the learners it is too much need to help the learners and support them. And one to one tutoring is very much helpful for bridging the gap and recovering the leaning loss during pandemic.

Remedial Classes: Another way to remove the learning gap among the learners is to take or organize the remedial classes and extra classes. Because the remedial classes help the learners to clear the doubts about the topic and reconstruction of knowledge.

Mental Health and Emotional Support: During pandemic stakeholders' students, teachers, administrators adapted some common mental health and emotional problems like stress, anxiety and depression. Which are the major problems in the post pandemic era. So, to cope with the post pandemic era teachers should support mentally and emotionally.

School-based Counselling: To remove the low rate of attendance among the pupils, to motivate and engage students, to support mentally and emotionally, to develop interest and positive attitude among the learners towards schools, the educational institution or schools should arrange the school based counselling programme.

Peer Support Programs and Collaborative learning: Peer Support programmes help and motivate the learners to develop a positive attitude towards the schools and education. And also helps to remove the learning gap and increase the school attendance of the learners.

Stress Management programme: For removing the barrier of education in post pandemic era stakeholders should arrange the stress management programme for the students.

Social and Emotional Learning: Social learning helps the learners to adjust with the social environment of the schools. On the other hand, emotional learning helps to regulate their emotion correctly among the learners.

Bridging the Digital Divide: To remove the inequalities among the learners first needs to bridge the digital divide among the learners. And to bridge the digital divide, universities have to provide universal access to technology and devices.

Blended learning: To ensure the participation of all learners and betterment of the education system after the pandemic challenges educators have to follow the blended learning environment.

Stipends and Allowances: Arrangement of stipends and allowance helps the learners and educational agencies to purchase and distribute the necessary technologies.

Device Distribution: To ensure the online participation of all the learners, especially the disadvantaged section of the society, the government and NGOs should adapt the policy to distribute Digital Devices among the learners.

Digital Literacy Programs: Organizing seminars, workshops, the digital literature programme by various university, district education departments and local agencies will help the learners to navigate the challenges.

Training for Students and Teachers: Organizing the training programme by DIET, SCERT, NCERT for the training purpose of the researchers, students and in-service teachers to help to overcome the challenges of post covid era.

Use of Educational Apps and Platforms: Another way to bridging the digital divide among the stakeholders is to use various types of educational apps, Platforms and games.

Adaptive Learning Technologies: Adaption with the technologies and virtual environment helps the stakeholders to deal with the challenges.

Universal Access to Technology: Lack of digital devices and access to technology is one of the challenges to filling the learning gap. So, using educational apps and platforms to give the universal access of technology to all learners dealing with the post pandemic era's challenges.

Curriculum Adaptation: To bridge the learning gap and deal with the challenges, the post pandemic era of education needs curriculum adaptation by Integration of technology and giving the opportunity to the students to learn about virtual literature.

Continuous Assessment and Feedback Mechanisms: Continuous and comprehensive evaluation helps to get the regular uninterrupted feedback from the learners. The regular monitoring and feedback help to diagnose the learning problem and challenges of the post-pandemic era. So, formative assessment helps to navigate the challenges.

Conclusion

In this study the researcher explored the impact of covid-19 pandemic on the global education system, examined the challenges faced by learners and educators in post pandemic situations and recommended the coping mechanism and strategies for dealing with a post pandemic educational environment.

- The effect of Covid-19 on global education system are Learning Gap, Digital Divide, Inequality, Lack of nutrition and impact on health, Increase the Dropout rate and so on.

- On the other hand, various educational challenges in the post pandemic era are Low rate of attendance, Lack of digital literature, Decrease the span of attention, Resistance to change, mental health issues, assessment and evaluation problem etc.
- And the coping mechanism and strategies to overcome challenges is to Bridging the learning gaps, arrange the Remedial Classes, Bridging the Digital Divide, organize Digital Literacy Programs, follow the continuous and comprehensive, innovative assessment and evaluation strategies.

So, the researchers conclude that the whole education system is significantly affected by covid-19 pandemic, and various challenges occur in post pandemic education. But on the other hand, covid-19 pandemic teaches us how to cope up, deal and to adjust with the immediate unfavourable condition and educational challenges. So, if the stakeholders are able to overcome the challenges by following the proposed coping mechanism and strategies, the education system of the post pandemic era will be more innovative and effective than the pre-pandemic era by integrating the virtual literatures, technology, and flexible learning environment.

Limitations of the Study

This research provides an insightful overview regarding effect, challenges, coping mechanisms and strategies of covid-19 post pandemic era. But there are also some limitations, which need to be highlighted. So that the further related research can generalize the findings more accurately and specifically.

The limitations of the study are---

- This research is mainly based on secondary data analysis which may restrict the in-depth understanding of actual viewpoints of stakeholders.
- As this is qualitative studies so the lack of quantitative data may not support to validate the findings
- This study is mainly focused on global aspects, but there may be some regional affecting variables which are not considered.
- Challenges and coping mechanisms differ based on the geographical area, socio-economic background of the country which is not considered in this research.

Suggestions for Further Research

Depending on this research a researcher can do further study through gathering data by interviewing learners and educators, survey in educational institutions or developing questionnaires for conducting grounded theory research in this field.

- The further research can be done as empirical study by gathering primary data from teachers, learners, educators, administrators of teacher education programs that can express the real time experience of stakeholders of the education system.
- Further research may be conducted on the Role of community involvement and parental support for removing the digital divide among the pupils in the post pandemic era.
- The effectiveness of pandemic on different age groups like adolescence learners, adult learners.
- Role of blended learning in continuing the educational process in unfavourable condition.
- Role of educators and institutions for removing the inequalities among the pupils.

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References

1. Anderson, D., & Johnson, S. (2021). Lessons from the pandemic: Rethinking education and learning models post-COVID-19. In Proceedings of the International Conference on Education Innovation (Vol. 45, No. 3, pp. 203-216).
2. Bao, W. (2020). COVID-19 and online teaching in higher education: A case study of Peking University. *Human Behavior and Emerging Technologies*, 2(2), 113–115. <https://doi.org/10.1002/hbe2.191>
3. Basilaia, G., & Kvavadze, D. (2020). Transition to online education in schools during a SARS-CoV-2 coronavirus (COVID-19) pandemic in Georgia. *Pedagogical Research*, 5(4), 10. <https://doi.org/10.29333/pr/7937>
4. Betthäuser, B. A., Bach-Mortensen, A. M., & Engzell, P. (2023). A systematic review and meta-analysis of the evidence on learning during the COVID-19 pandemic. *Nature Human Behaviour*, 7(3), 375–385. <https://doi.org/10.1038/s41562-022-01429-5>
5. Burgess, S. and Sievertsen, H. H. (2020). Schools, skills, and learning: The impact of COVID-19 on education.

6. Batubara, B. M. (2020). The Problems of the World of Education in the Middle of the Covid-19 Pandemic. Budapest International Research and Critics Institute-Journal, 3(1), 450-457.
7. Dhawan, S. (2020). Online learning: A panacea in the time of COVID-19 crises. Journal of Educational Technology, 49(1), 5–22. <https://doi.org/10.1177/0047239520934018>
8. Dhillon, R. (2024). Post Pandemic Mental Health and Care Strategies. International Journal of Research and Review, 11(6), 184-190. E-ISSN: 2349-9788; P-ISSN: 2454-2237. DOI: <https://doi.org/10.52403/ijrr.20240621>
9. Donnelly, R., & Patrinos, H. A. (2022). Learning loss during COVID-19: An early systematic review. Prospects, 51(4), 601–609. <https://doi.org/10.1007/s11125-021-09582-6>
10. 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), <https://doi.org/10.1073/pnas.2022376118>
11. Efriana, L. (2021). Problems of online learning during COVID-19 pandemic in EFL classroom and the solution. JELITA: Journal of English Language Teaching and Literature, 2(1), 38–47.
12. Goudeau, S., Sanrey, C., Stanczak, A., Manstead, A., & Darnon, C. (2021). Why lockdown and distance learning during the COVID-19 pandemic are likely to increase the social class achievement gap. Nature Human Behaviour, 5(10), 1273–1281. <https://doi.org/10.1038/s41562-021-01212-7>
13. Hodges, C., Moore, S., Lockee, B., Trust, T., & Bond, A. (2020). The difference between emergency remote teaching and online learning. Educateur Review, 27(1), 1-12.
14. Khan, S., & Mohakud, L.L. (2020). Covid-19 and Digital Divide in Higher Education: Exploring the Indian Scenario. The human right issues in India.
15. Kift, S., Zacharias, N., & Brett, M. (2021). The best chance for all: A policy roadmap for post-pandemic panic. Social Science Journal, 12(3), 26-36. ISSN: 2205-0795 <https://doi.org/10.5204/ssj.1782>
16. Kuhfeld, M., Soland, J., Tarasawa, B., Johnson, A., & Dworkin, J. (2020). The impact of COVID-19 on student achievement and what it may mean for educators. Brookings Institution. Retrieved from <https://www.brookings.edu>
17. Lennox, J., Reuge, N., & Benavides, F. (2021). UNICEF's lessons learned from the education response to the COVID-19 crisis and reflections on the implications for education policy. International Journal of Educational Development, 85, 102429. <https://doi.org/10.1016/j.ijedudev.2021.102429>
18. Mahyoob, M. (2020). Challenges of e-learning during the COVID-19 pandemic experienced by EFL learners. Arab World English Journal, 11(4), 351 -362. <https://doi.org/10.24093/awej/vol11no4.23>
19. M. A. Zaki Ewiss. (2021). Roadmap for Education Development Post COVID-19. The Educational Review, USA, 5(3), 57-69. DOI: 10.26855/er.2021.03.005
20. Maurin, E., & McNally, S. (2008). Vive la révolution! Long-term educational returns of 1968 to the angry students. Journal of Labor Economics, 26(1). <https://doi.org/10.1086/522071>
21. Murgatrot, S. (2020, March). COVID-19 and Online learning, Alberta, Canada. doi:10.13140/RG.2.2.31132.85120
22. Özdöğru, G. (2021). Problems faced in distance education during COVID-19 pandemic. Participatory Educational Research, 8(4), 321-333 <https://doi.org/10.17275/per.21.92.8.4>
23. Pokhrel, S., & Chhetri, R. (2021). A literature review on impact of COVID-19 pandemic on teaching and learning. Higher Education for the Future, 8(1), 133-141. <https://doi.org/10.1177/2347631120983481>
24. Rulandari, N. (2020). The impact of the COVID-19 pandemic on the world of education in Indonesia. Ilomata International Journal of Social Science, 1(4), 242-250. <https://www.ilomata.org/index.php/ijss>
25. 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, 16(7), em1851. <https://doi.org/10.29333/ejmste/7893>
26. Tarkar, P. (2020). Impact Of Covid-19 Pandemic on Education System. International Journal of Advanced Science and Technology, 29(9), 3812-3814.
27. UNESCO. (2021). Education in a post-COVID world: Nine ideas for public action. United Nations Educational, Scientific and Cultural Organization.
28. UNICEF. (2022). COVID-19 and education: The lingering effects on children and youth. UNICEF Policy Brief. Retrieved from <https://www.unicef.org>
29. World Bank. (2022). The state of global learning poverty: 2022 update. The World Bank Group.
30. Zhao, Y. (2020). COVID-19 as a catalyst for educational change. Prospects, 49(1-2), 29-33. <https://doi.org/10.1007/s11125-020-09477-y>

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