

An analysis of Covid-19 Impacts on Education in Rural Indian Areas-A Review

Madhu Choudhary*

Associate Professor, Department of Zoology, Govt. Lohia P. G. College, Churu, Rajasthan, India

***Address for Correspondence:** Dr. Madhu Chaudhery, Associate Professor, Department of Zoology, Lohia Govt. P. G. College, Churu, Rajasthan, India

E-mail: madhubeeet20@gmail.com

Received: 26 Apr 2021/ Revised: 23 June 2021/ Accepted: 03 Aug 2021

ABSTRACT

Indian Education system is based on traditional elements, in which the students and teachers are in direct dialogue with each other. Due to the Covid-19 pandemic, when the lockdown was imposed at the national level on March 25, 2020, suddenly the online education system was started to eliminate the disruption in education and to implement the teaching work smoothly. In the present article, we will discuss the effects and consequences of the online education system implemented as a new education system during the Covid-19 pandemic on rural education. A lot of problems were faced with starting this arrangement. The people living in rural areas faced more problems because of this new technique than people living in cities. This paper discusses the impacts of this new way of education, i.e. online education, on Rural India.

Key-words: Covid-19, Digitalization, Internet Connectivity, Online Education, Smart Phone, Traditional Education

INTRODUCTION

In rural India, teaching work is based chiefly on the traditional education system. Here schools and colleges are the centres of educating the students and developing their complete mental, physical and social qualities, that is, there is an all-round development of the children who can become the strong pillars of the nation in future. India's school system is the most extensive education system in the world after China. Due to the lack of easy availability of the internet, teachers are also the source of inspiration for rural students and the primary source of getting various information (which also contains information related to their future construction), i.e., in other words, in rural areas. More or less, teachers play an essential role as the future builders of the students. During the lockdown period because of Covid-19, when Online-Education came into existence, the direct dialogue between teachers and children ceased.

Due to this, there were some pros and some cons to education in rural areas. According to a report by UNESCO ^[1], 63 million teachers were affected in 165 countries. A total of 1300 million people could not go to school and college globally, and in India, 320 million people did not go to school or colleges.

This study is based on the information and statistics obtained from various national and internationally published articles and authenticated websites. These are mentioned in the references. Statistics obtained from a few journals are also assimilated, which shows the impact of online education during covid-19.

Online Education and Challenges in rural India- IDR (India Development Review) ^[2-7] November 19, 2020, according to a report by Upmanyu Das, in Pratham Education Foundation's annual report (Annual Status of Education Report ASER-2020) presented the statistics of availability of teaching materials for online education in rural areas. According to a report of ASER 2020, rural areas had to face many problems in online education during Covid-19, in which main were-

1. The low educational level of most parents- Less educated parents could not understand and teach their children about digital resources.

How to cite this article

Choudhary M. An analysis of Covid-19 Impacts on Education in Rural Indian Areas-A Review. SSR Inst. Int. J. Life Sci., 2021; 7(6S): 40S-47S.



Access this article online
<https://ijls.com/>

Around 28%, rural areas children didn't get any help from their family.

2. Low availability of smartphones and other necessary digital devices with students in rural areas and problems related to the internet such as weak signal, incomplete availability of internet data, etc., caused a hindrance in providing education. According to the data of 2020, 62% of students had smartphones available, out of which About 75 per cent of the students used WhatsApp for teaching work, and only a quarter of these students had direct contact with the teacher.

According to the ASER report, despite the availability of smartphones, due to internet disruptions and lack of technical knowledge of educational institutions and students, not all students could take advantage of online learning.

- Twenty-nine per cent of the children could not participate in any educational activity.
 - Sixty-six per cent of children did not receive any instruction from their educational institutions.
 - Only 11 per cent of the students attended the live online classes.
 - Thirty-two per cent of children, who accessed smartphones did not receive any learning material.
 - Weaker internet signals in rural areas than in cities were also a significant challenge.
3. **Shortage of Textbooks-** According to the report, 20 per cent of rural children could not get textbooks.

The Hindu July 25, 2021 ^[5]- According to Mala Kumar's report, students in rural areas faced many difficulties because of less network coverage.



Students from a hamlet near a Nilgiris reserve forest find the only spot with network coverage | Photo Credit: **SATHYAMOORTHY M**

Fig. 1: Issues faced by children due to weak internet signal ^[5]

The gathering of students from a village near the Nilgiri reserve forest area at a specific place away from home for online learning shows the challenging aspect of

online teaching. More such news was also received from time to time from Bihar, Rajasthan, and other places of the country.



Fig. 2: Students studying away from the village due to weak network ^[9]
(Photo credit: Nava Bharat Times India)



Fig. 3: Student studying on a hill away from the village due to weak network, Barmer (Raj.) India
Photo credit: UPKNN ^[10]

4. Continued cut in electricity supply is also a big challenge for digitization of education in rural areas.

The challenge of not completing the practical learning tasks in virtual class form was also significant. Shared use of the same device (smartphone) in economically weaker families also causes trouble in online teaching.

According to the report of India ^[8]: What Rural Parents & Schools are saying about Covid-19 impact, SakshiSodhi, Hannah Hilali, and Catherine O'Shea (opportunity Edu. Finance)-

- Only 13 per cent of schools took professional guidance to help their teachers with online learning during the lockdown.
- Forty-one per cent of the institutes reported low interest in students' studies, and 57 per cent found it challenging to connect students online.

In higher education, the situation of online teaching remained more or less the same. About 50 per cent of the college students were regularly connected with the WhatsApp groups created for online teaching work [11-15]. The availability of smartphones is more for college students as compared to school students. Smartphones are mainly used for internet connectivity by college students of rural areas.

Current status of Internet connectivity in rural areas-

Internet connectivity is an essential aspect of online teaching work. Internet connectivity increased in 2020 than before due to the joint efforts of government educational institutions and parents to conduct the teaching work uninterrupted amid the lockdown of Covid-19. According to a report of Financial Express [16] on September 20 and according to the latest report of TRAI [17] (Telecom Regulatory Authority of India), the number of Internet users in the December quarter-end 2019 was 71874 million, which increased by 34 per cent to 74314 million by March 2020.

- According to the report, 92.5 per cent of the total internet customers use broadband for the internet.
- The number of broadband subscribers was 66195 crore in December 2019, which increased to 68.744 crores in March 2020.
- 96.90 per cent of the total internet customers use mobile for the internet.
- A smartphone is the most considerable means of internet connectivity in rural areas.

Progressive Dimensions of Online Education- Several progressive schemes launched by the Government of India with the joint efforts of some NGOs and educational institutions proved to help make the education system solid and smooth in this pandemic era [18-22]. These plans will prove to be the foundation stone for online education in the future. The decision to create an e-library is one such initiative-

- Swayam-** The objective of SWAYAM is to provide a learning platform to all, including the most disadvantaged. It hosts almost all the courses taught in classrooms from Class 9 till post-graduation. More information on SWAYAM can be obtained on the official website, swayam.gov.in.

- Diksha-** An initiative by National Council of Educational Research and Training, Ministry of Education, Government of India. DIKSHA can be retrieved at diksha.gov.in by apprentices and instructors throughout the country. It currently supports various courses of NCERT, CBSE, and SCERTS across India.
- e-Shodh Sindhu-** Its member institutions will provide current and archival access to more than 10,000 peer-reviewed journals and several bibliographic, citation, and factual databases. e-Shodh Sindhu can be accessed at ess.inflibnet.ac.in.
- e-PG Pathshala-** It is provided by the MHRD under its National Mission on Education through ICT, which the UGC is executing. The platform, epgp.inflibnet.ac.in provides collaborative e-content in a total of 70 subjects across all disciplines of social sciences, arts, fine arts, and humanities, natural & mathematical sciences.
- Swayam Prabha-** It consists of 34 DTH channels that are keen on broad casting first-class educational programs 24x7. The course contents are provided by NPTEL, IITs, UGC, CEC, IGNOU, NCERT, and NIOS. The website is swayamprabha.gov.in.
- NPTEL-** The National Programme on Technology Enhanced Learning was initiated by IIT Bombay, IIT Delhi, IIT Kanpur, IIT Kharagpur, IIT Madras, IIT Guwahati, IIT Roorkee along with the Indian Institute of Science, Bangalore in 2003. NPTEL platform, nptel.ac.in provides open online courses around engineering and core science subjects.

In the current pandemic situation, Central Government, as well as State Governments, also started some programs. To maintain the dynamics and improve the quality of online teaching in higher education in the state, the Gyan Ganga program for the training of teachers in December 2020 and Gyandoot for online live classes in June, and Gyansudha program for the preparation of competitive examinations in the interest of students were launched.

Table 1: Positive and Negative Impact of COVID-19 on Education of Rural Areas

The positive impact of COVID-19	Negative Impact of COVID-19
Digital literacy	Delay in teaching work
Promotion of Online Meetings	Digital gadgets opportunities
Electronic media	Lack of Guidance for Selection of E-content
A study by soft copy	Absence of mid-day meal
World Wide Exposure	Education Activities Hampered
The tendency to learn technology increased during the epidemic in rural areas	Health issues
A co-option for traditional education	Lack of classroom proficiency

Impact of Online Teaching-Learning Program in Rural Areas-

Online education affected teachers, students and parents more or less. It had both positive and negative effects.

Positive impact of COVID-19

Digital literacy- It was promoted during the lockdown, and students and teachers in rural areas made efforts to adapt and understand online teaching-learning [23-26].

Promotion of Online Meetings- The trend of virtual meetings, webinars, and e-conferences, etc., increased.

Share of Information through Electronic Media- Use of electronic media (Youtube, Facebook, Whatsapp, etc) for information sharing by educational institutions, teachers, and students increased during work from home activities lockdown.

A study by soft copy- In online teaching, the study of e-content by students in rural areas was done by soft copy due to the non-availability of hard copy.

World Wide Exposure- With the digitization of education, rural children also got an opportunity to learn from every corner and language of the world.

The tendency to learn technology increased during the epidemic in rural areas- Due to unfavourable conditions for formal education, the tendency to learn and use the proper technical knowledge increased under compulsion.

A co-option for traditional education- Online education has emerged as a co-option of traditional education in the pandemic, even in rural areas.

Negative Impact of COVID-19

Delay in teaching work- Due to the imperfection of technical knowledge among teachers, students, and parents in rural areas, online teaching could not help students and teachers with their teaching tasks [27].

Digital gadgets opportunities- Due to lack of adequate access to the internet in rural areas and lack of digital devices for all children due to economic weakness, not all students could benefit from online learning.

Lack of Guidance for Selection of E-content- Online exposure of all types of worldwide uploaded e-contents to children of every age group is possible, but they should select appropriate content; there was a complete lack of this guidance. Due to low educational levels and lack of technical knowledge, parents could not exercise adequate guidance and control. In online teaching, the communication between students and teachers was negligible. The possibilities of following the wrong things by the children often cannot be ruled out.

Absences of mid-day meal- But due to the closure of educational institutions during Covid-19, the children were deprived of the mid-day meal.

Education Activities Hampered- Online During the teaching process, examinations (annual examinations and competitive examinations) and practical work were postponed, leading to a deadlock in the education system.

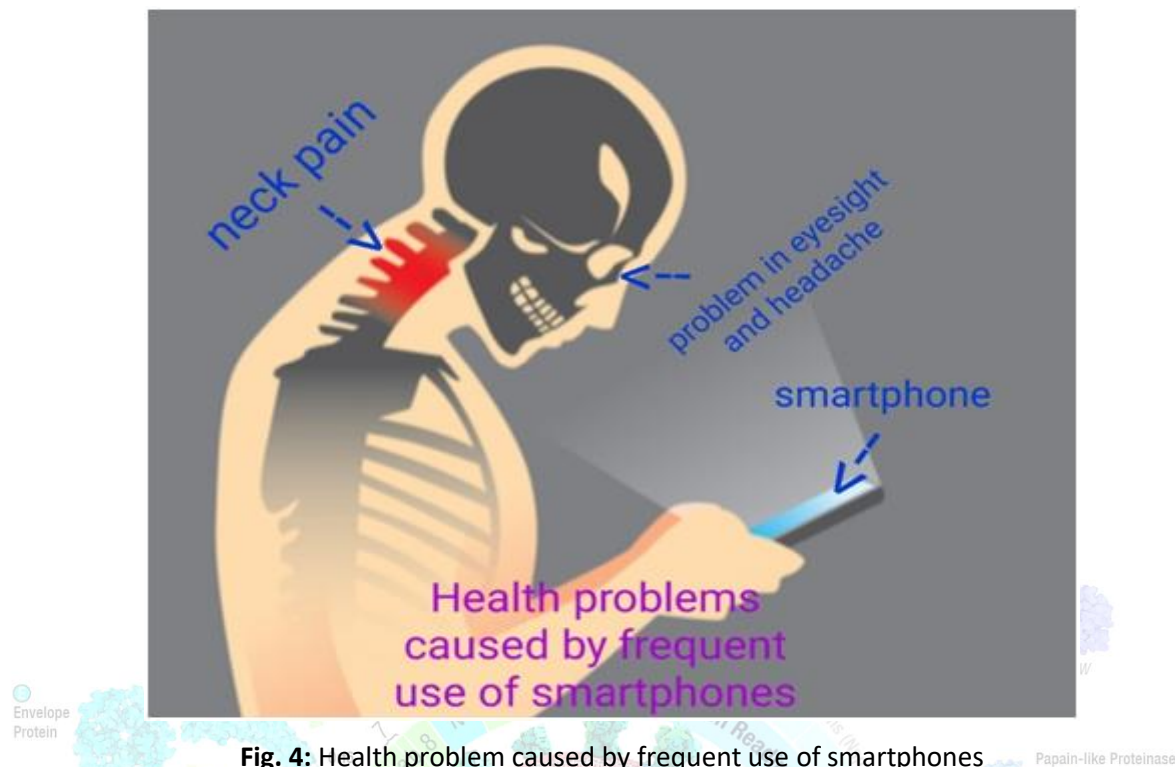


Fig. 4: Health problem caused by frequent use of smartphones

Health Issues- As a result of prolonged screen time, there is an increase in eyesight problems and frequent headaches in students. In addition to this home, confinement has resulted in depression, anxiety and sleep disorders [28-30].

Lack of classroom proficiency- Children attending online classes, lack classroom proficiency.

CONCLUSIONS

Since most of the Indian population is living in villages and suburban areas, so the development of a new education system facility across the country is much needed in rural and suburban areas as compared to the city and metropolitan areas in the current scenario. Due to several reasons like availability of electricity, network and health problems, rural peoples or students especially at primary education level, the digitalization facilities cannot be accessed even it is provided free of cost by Governments. Indian rural educational institutions where technology was negligible in teaching work were not prepared for the sudden changes during the pandemic. Still, to maintain the continuity of teaching work in lockdown, there was no option other than online teaching. Therefore, teachers, students, and parents with half-baked technical knowledge had to adopt online learning. At present, there are many flaws in this system, due to which there is a need to improve this system.

It can be concluded that the use of digital teaching technology methods may be the source of a perfect and co-option with traditional teaching by training teachers and students. Keeping in mind the needs of the future, it can be continued, the efforts being made by the government and non-government in this direction. Through the digitization medium of teaching to educate and skilled people, we can establish a robust education system in rural areas of India in the future. According to scientists, and we may have to face many more such epidemics in the future. In such a situation, the digitalization of education is a better option to develop an advanced education system. We will be able to run our education system smoothly during sudden calamities and epidemics. With the digitization of education, the children's technical knowledge will increase, which will also be helpful in the country's development.

CONTRIBUTION OF AUTHORS

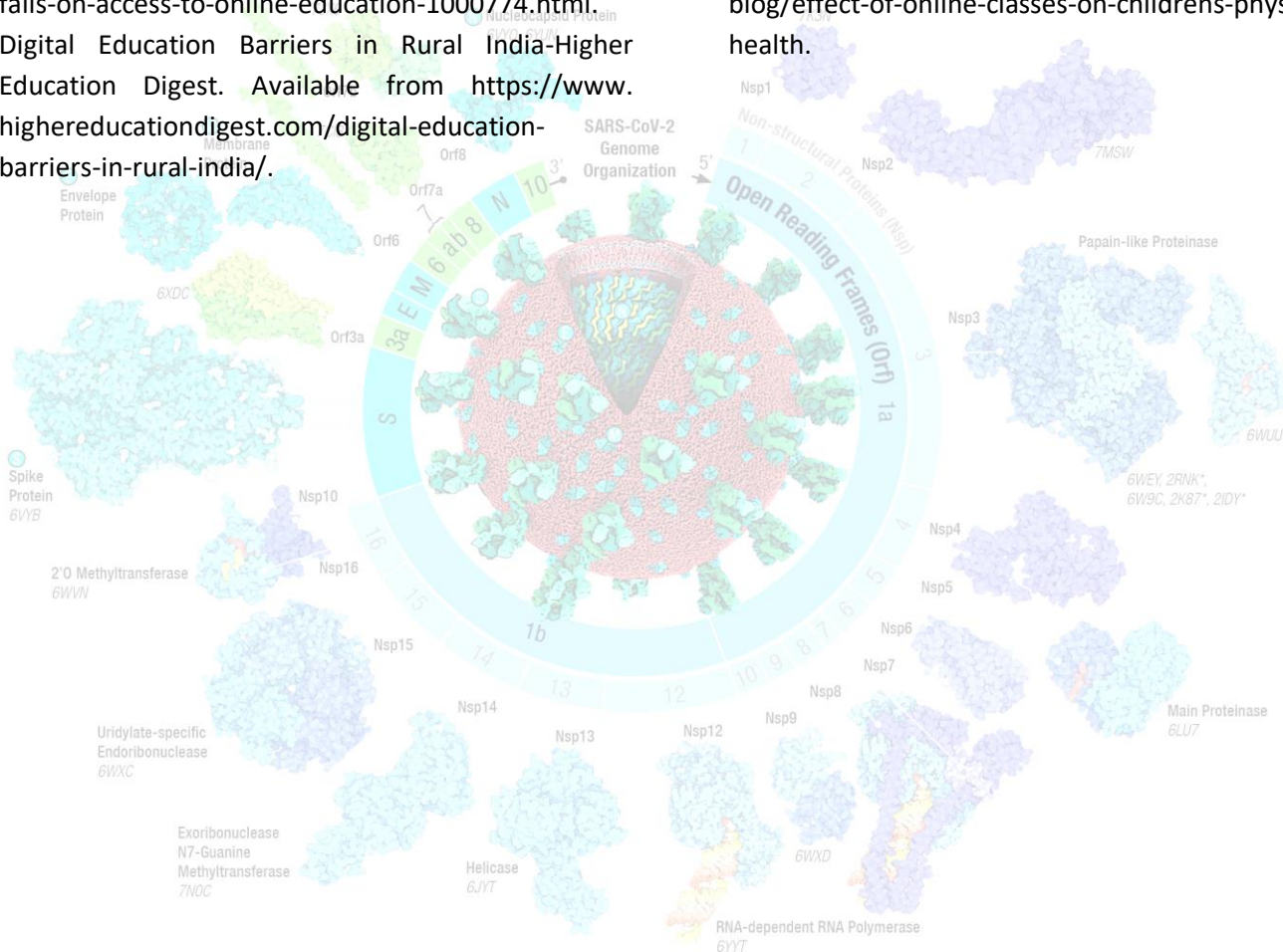
One author is only contributed in this article.

REFERENCES

- [1] Education: From disruption to recovery [August 20, 2021]. Available from: <https://en.unesco.org/covid-19/educationresponse>.
- [2] Education in rural India during the COVID-19 lockdown|IDR- [August 19, 2021] Available from: <https://idronline.org/aser2020-covid-education-in-rural-india-during-lockdown/>.

- [3] ASER 2020 Wave 1- ASER Centre [August 19, 2021] Available from: <http://www.asercentre.org/Key-words/p/371.html>.
- [4] ASER Survey [August 18, 2021]. Available from: <https://www.thehindu.com/news/national/coronavirus-20-of-rural-school-children-had-no-textbooks-due-to-covid-19-impact-finds-aser-survey/article32966299.ece>.
- [5] Teaching during the pandemic-<https://www.thehindu.com/society/as-the-pandemic-makes-digital-teaching-the-norm-these-initiatives-are-bringing-school-to-rural-children/article35482315.ece>.
- [6] The impact of rural Education in India during COVID-19 [August 18, 2021] Available from: <https://givingcompass.org/article/the-impact-of-rural-education-in-india-during-covid-19/>.
- [7] Rural India: The key to propel education in India [August 20, 2021] Available from: <https://www.india-today.in/education-today/feature/philip/story/how-covid-19-pandemic-has-adversely-impacted-education-in-rural-india-1775127-2021-03-03>.
- [8] INDIA: What rural parents & schools are saying about COVID-19 [cited 2021 August 21] Available from: <https://edufinance.org/latest/blog/2020/india-what-rural-parents-and-schools-are-saying-about-covid-19-impacts>.
- [9] Network became a big problem in the village along the China border; there was a disturbance in the online classes of the children. Available from: https://navbharattimes.indiatimes.com/state/uttarakhand/other-cities/network-became-a-big-problem-in-villages-bordering-china-border-online-classes-of-children-were-disturbed/amp_articleshow/83217414.cms.
- [10] There is no network in the village, students are taking online classes on the mountain. Available from <https://upkiran.org/no-network-in-the-village-students-taking-online-classes-on-the-mountain-this-player-extended-a-helping-hand/>.
- [11] Has the coronavirus pandemic changed higher education for good. Available from: <https://www.qs.com/has-the-coronavirus-pandemic-changed-higher-education-for-good/>.
- [12] How digital learning in higher education can thrive beyond the pandemic. Available from: https://givingcompass.org/article/how-digital-learning-in-higher-education-can-thrive-beyond-the-pandemic/?gclid=Cj0KCQjw1dGJBhD4ARIsANb6OdmX7rbOqrj0r-ZpbV8aMnrwuqDL1b8wWislkVb6DBJQrckxl_EkYUaAmi5EALw_wcB.
- [13] Impact of covid-19 pandemic on higher education and research. Available from https://www.researchgate.net/publication/343820992_Impact_of_Covid-19_Pandemic_on_Higher_Education_and_Research.
- [14] Literature review on impact of covid-19 pandemic on teaching and learning. Sumitra pokhrel, Roshan Chhetri. Available from: <https://journals.sagepub.com/doi/full/10.1177/2347631120983481>.
- [15] How did the Covid-19 Pandemic Affect Higher Education Learning experience? An Empirical investigation. Available from: <https://www.hindawi.com/journals/ahci/2021/6649524/>.
- [16] Financial Express. Available from: <https://www.financialexpress.com/hindi/technology-news/internet-user-base-rises-3-4-pc-to-743-mn-at-mar-end-jio-commands-over-52-pc-market-traddata/2087698/>.
- [17] Increased of internet data users in India [August 19, 2021]. Available from: <https://traigov.in/hi/notifications/press-release/31-2021-1>.
- [18] Free e-Learning platforms developed by the Government of India. Available from: <https://www.timesnownews.com/education/article/free-e-learning-platforms-developed-by-the-government-of-india/758567>.
- [19] e-learning | Government of India: National Institute of Electronics & Information Technology. Available from: <https://www.nielit.gov.in/e-learning>.
- [20] Ministry of Education. Available from <https://www.education.gov.in/en/e-content>.
- [21] Vikaspedia Domains. Available from: <https://vikaspedia.in/education/education-best-practices/remote-learning-initiatives-in-india/remote-learning-initiatives-in-rajasthan>.
- [22] Rajasthan Government, Bright Tutee unveil free digital learning app for school students. Available from: <https://www.shiksha.com/boards/articles/rajasthan-government-bright-tutee-unveil-free-digital-learning-app-for-school-students-blogId-34101>.
- [23] Digital Education among Students in Rural Areas | Forbes India Blog. Available from: <https://www.forbesindia.com/blog/education/digital-education-among-students-in-rural-areas/>.

- [24] Improving Digital Learning in Rural India Using Voice Technology. Available from: <https://www.Atlasprimer.com/post/improving-digital-learning-in-rural-india-using-voice-technology>.
- [25] Parents teachers scramble for access to e-learning in rural India. Available from <https://www.livemint.com/news/india/parents-teachers-scramble-for-access-to-e-learning-in-rural-india-11593948421008.html>.
- [26] A 'Digital India' that fails on access to online education. Available from: <https://www.deccanherald.com/opinion/panorama/a-digital-india-that-fails-on-access-to-online-education-1000774.html>.
- [27] Digital Education Barriers in Rural India-Higher Education Digest. Available from <https://www.highereducationdigest.com/digital-education-barriers-in-rural-india/>.
- [28] Online classes: 55% of students report health issues- Times of India. Available from: https://m.timesofindia.com/home/education/news/online-classes-55-students-report-health-issues/amp_articlesHOW/84726739.cms.
- [29] Online classes leading to stress, eye problems in children say parents. Available from: <https://www.hindustantimes.com/chandigarh/online-classes-leading-to-stress-eye-problems-in-children-say-parents/story-y4a8cnLKqHN8oCqozZ0psN.html/>.
- [30] Effect of online classes on Children's health. Available from: <https://www.narayanahealth.org/blog/effect-of-online-classes-on-childrens-physical-health>.



Open Access Policy:

Authors/Contributors are responsible for originality, contents, correct references, and ethical issues. SSR-IJLS publishes all articles under Creative Commons Attribution- Non-Commercial 4.0 International License (CC BY-NC). <https://creativecommons.org/licenses/by-nc/4.0/legalcode>

