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Abstract

As we all are dealing with uncertainty of outcomes caused by COVID-19 pandemic in various walks of life, this becomes very essential to know how it has impacted our education. Most of the institutions came up with the idea to continue academic sessions digitally so that the academic year of the students could be saved. The study was conducted to analyze the outcomes of digital learning on students studying at elementary level. Qualitative survey method was adopted for the study as the purpose of the study was not to quantify the information but to look into it more deeply and realistically. The data was collected, over a long period of 6 months, both digitally and wherever possible, by paying personal visits as well, with the help of a self-developed survey containing different aspects related to teaching and learning that could possibly affect learners. There were 160 responses recorded in total. The results of the study have not only shown how e-learning is adversely affecting the health of the students but also brought to light various interesting facts about how some of them are enjoying studying being at home. Many of the pupils were to start their schooling in 2020 but due to lockdown they had to study online staying at home, for such pupils the idea of school is not getting developed and they are not taking their school activities seriously. The results have also indicated towards a few aspects as how digital learning is impacting not just the students but the whole family.

Keywords: elementary education; family environment; learning outcome; mental health; physical health
1. Introduction

Education plays an integral part in the overall development of the personality. With a view to strengthen the very foundation of every child, in the year 2002, elementary education in India was made a fundamental right of every child between the age group of 6-14 years. It is responsibility of the government to provide free and compulsory early education to the needy. As the previous year brought a number of uncertainties and challenges for the whole world. The education is also not left unaffected and the continuation of education came to a standstill. Nobody is prepared or trained to handle such a catastrophe. We had to go through a sudden lockdown that along with other activities hit hard upon learning system too. Specially when we talk about school education it is still struggling to be back on its normal track but as a solution it seems the best way to continue remote education through internet. In this way the social distance norms are being followed and also the education of the students has a hope to continue.

UNESCO is supporting countries in their efforts to mitigate the immediate impact of school closures, particularly for more vulnerable and disadvantaged communities, and to facilitate the continuity of education for all through remote learning (UNESCO, 2020). The initiative to turn the whole school into a digital school is a noble idea, which helped the students to complete their course and also to save their academic year by keeping them safe with the least chances of getting them exposed to the COVID-19 virus. This is the prominent cause that from the last year we have seen a huge spike in the number of digital conferences, course-works and webinars. Unicef has addressed that with school closures across 188 countries (as of April 2020), many of them are exploring alternative ways to provide continuous education using technologies such as Internet, TV, and radio. However, access to these technologies is limited in many low- and middle-income countries, especially among poor households (Unicef, 2020). We all were depended upon the internet for our each and every need from ordering groceries, watching news, playing games and to attend online schools. This whole system put all of us behind the screens i.e. phones and computers. As also discussed by World Economic Forum, “With this sudden shift away from the classroom in many parts of the globe, some are wondering whether the adoption of online learning will continue to persist post-pandemic, and how such a shift would impact the worldwide education market”. (WEForum, 2020). Prima facie remote learning seems good hence the researcher has tried to analyze how this digital learning is affecting the learners in different dimensions such as mentally, physically and also socially.

2. Methodology
The idea behind the study was to dig deeper into the issues related to the digital learning from the pupils’ perspective and the targeted population was the pre-elementary and elementary level learners. Hence the researcher opted for a qualitative survey method and for that an open ended questionnaire was developed by the researcher. The questionnaire included statements regarding possible issues that could be affecting the learners in various aspects. The data was collected from the parents in case of very young pupils and for the pupils above 11 years the information was provided by themselves. The responses were recorded from two mediums one was online in case when the respondents were not available locally and the other was field survey by visiting the houses of the pupils wherever it was possible. These ways helped to get the detailed information both on paper and by observation. There were 160 responses received in total.

3. Analysis and Interpretation of Data

The recorded data was analyzed by following all the necessary steps for content analysis by clubbing the content of same nature and putting it into the categories to which it belonged. The interpretation of responses is discussed in detail below with the help of figures:

![Fig.1: Impact of Digital Learning on Behavior](image)

The above Fig.1 categorically shows how the pandemic has changed the behavior of the pupils and sadly all the aspects are indicating to the negative side of the behaviour more than the positive one. After staying at home for so long with least public contact the behaviour of the...
whole family is changing in many ways and this has a direct impact on the kids’ behaviour. The reasons behind this as per the responses were:

Environment of the family came to be the most prominent factor that itself includes many secondary factors such as where both the parents are working their office has also shifted to the home, they have to manage household chores and complete their office tasks along with assisting their kids with the studies. All these activities are going on almost in every house these days and this is creating mental chaos. This mixed type of environment is interfering with the studies and pupils are not able to concentrate properly. Also being pampered at home by their family members most of the kids are becoming less disciplined and more short-tempered. As they are staying at home since very long the kids are also becoming agoraphobic and feel uncomfortable in facing large number of people.

The above data in Fig.2 is showing how the remote learning has directly impacted the health of the pupils. As the kids now have to spend more time on watching the screens, this increased watch-time has adversely affected on the eyesight, this further resulted into regular headaches and reduced sleep time. In case of loss of appetite more responses indicated that the number of kids having appetite loss and those with either normal or increased diet are almost equal and in both the cases it was reasoned somewhat similar that the kids are eating actually more or less than their usual diet as they are stressed by over using the digital platforms and also the factors...
related to the family environment mentioned in the analysis of Fig.1 are playing an important part in this.

*Fig. 3: Impact of Digital Learning on Perception for Future Education*

The Fig.3 shows the responses regarding impact of digital learning on the overall perception of the pupils and parents for future education. When the pupils were asked if they want to continue their schooling online post-pandemic, the responses were almost equal for yes and no. The reason for maximum responses given in affirmative were that studying online is more feasible as the parents don’t need to pay for school transportation that adds to some savings to them and also the kids can be taken better care at home than being at the schools. The pupils are taking it as a long vacation where they are staying at home and also completing their schooling altogether. This is the main reason why the pupils are willing to further continue online schooling and most of the responses received are indicating the possibilities that remote learning can potentially take place of the conventional teaching in near future. The negative responses reasoned by the parents were that digital learning is not suitable for the children whose studies have just started and specifically those who are admitted in kindergarten, the concept of school is not developed for them and the activities given by the teachers are just a game to play which they shall complete (if they shall complete) as per their mood. This lack of school environment is becoming an obstacle in the early grooming of the kids so this is not a possibility that the digital learning will replace the conventional learning completely but it surely will remain as an indispensable part to aid in the studies in the future. Even World Economic Forum also wrote on its website that Research suggests that online learning has been shown to increase retention of information, and take less time, meaning the changes coronavirus have caused might be here to stay (WEForum, 2020).

*Fig. 4: Impact of Digital Learning on Learning Outcomes*
The given Fig.4 shows how digital learning has impacted on overall learning outcomes. Learning outcome here denotes the final grades obtained by the pupils after comparing their mid-term examinations’ grades with annual examinations’ grades. The researcher found that both the results were different in most of the cases and in some cases no such difference was found. The mid-term examinations were conducted, before the enforcement of pandemic lockdown, in the schools and the annual exams were conducted online at the time of lockdown. It was found that the number of such pupils was the largest who scored average in the mid-terms but scored above average in the annuals. Similarly the number of the pupils was also nearly equal who scored above average in the earlier but scored average or below average later. The reasons for the improvement can be because the kids actually studied well during lockdown but there were also a few incidences when the kids were noticed cheating during the examinations and that indicates that there are fair chances to cheat during the online examinations and may be some of them also did that. In the case of drop in the grades the reasons can be that pupils were not attentive during the class or they could not find the additional help from their family to understand the concepts as not every kid in India has learning environment at their homes in addition to that their poor health can also be a causing factor. The reason for the students who did not show any changes in their grades can be that they paid same amount of effort for the annuals as they paid for the mid-terms and there was not any great difference in their study pattern before and during pandemic.

4. Conclusion
The findings of the study brought to attention the issues that are being faced by the pupils, there is a dire need to resolve these issues at the earliest for the smoother approach towards the digital learning and to take the most benefits out of it. The researcher has provided some suggestion regarding the same that may be of good help to lessen the hurdles and aid a little in the path of making this whole process smoother. Some suggestions are:

- Yoga or meditation class should be a part of daily activities that will aid pupils for healthy start of the day and releasing the stress that will make them to concentrate better.
- There should be a group discussion class activity held on alternate days based on some preset topics (topics selection depending on the class level) that will help pupils to interact with their classmates and put their creative ideas before everyone. This will also make pupils to be familiar with their teachers.
- On the part of the family it is suggested that the members of the family must spare some time to involve with their wards in some creative activities that will be beneficial for both the kids and their guardians as well as it will give them the good time that is needed to get relieved from the anxiety.
- On the part of governance and administration the availability of internet connection should be supervised regularly to optimize the reach of the network and its functioning so that maximum number of pupils can be benefitted. There should also some workshops also be organized for increasing digital literacy with special target to literate the parents so that they can adopt and understand technology in an easier way. That will assist more families to come under the nexus of remote learning.

If we talk about extension of the study, it has a wide area that can be explored further giving great scope for the researchers to be as creative as they can. Current study is conducted with the pupil’s perspective but this can be extended to the teachers’ perspective as well and also to the students learning at higher levels. Likewise the study can be further conducted as a comparative study between different sectors of the society i.e. between urban, suburban and rural region, between female and male students so on and so forth.

Though the study has brought out mixed responses this can be concluded that digital learning do has assisted the pupils in many ways. It has not only saved them from the stress of losing their academic sessions but also from the fear of getting affected with COVID-19. It is true that it has challenged a number of households to adopt the technology-friendly education for their wards but they are comprehending the situation and tackling it with the best possible way. The cyber infrastructure is also becoming more adaptable for the laymen and is gradually seems to be reaching to almost every corner of the country. Likewise everybody is trying to overcome the hardships placed due to this catastrophic virus, this is the only hope that this crucial phase of COVID-19 will be over very soon bringing back normal and healthy life for all.

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References


