



‘Maslow before bloom’- teachers’ views on the impact of e-learning on post-pandemic early childhood education pedagogy

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Abstract

Social distancing is being enforced across the world in response to Covid19 pandemic that has led to closure of schools. To avoid total curriculum disruption during Covid-19 pandemic, education has now shifted to e-learning, which has led to challenges to both educators and the learners. Transitioning from traditional face-to-face learning to online learning can be an entirely different experience for the learners and the educators that they were not prepared for. Data of this study was collected from 80 teachers, by a mix method approach and aimed to study the impact of e-learning on pedagogy specifically focusing on teachers experiences of teaching in the pandemic. The study found that teachers had been lacking information and communication technology (ICT) knowledge and were highly unprepared for this phase of education. Also parents cooperation during teaching, usage of developmentally appropriate practises, various challenges as well as perks of online teaching as well as their overall experience as described by the teachers is mentioned in the paper.

Keywords: Covid-19 pandemic, e-learning, teachers experiences, post pandemic early childhood education pedagogy

Introduction

Maslow before bloom and pedagogy

Maslow before Bloom is a common term that describes how people must first get their fundamental needs fulfilled before they can truly embrace academic learning. Pedagogy is described as the “art, science, or profession of teaching; especially: education.” A developmentally effective ECCE programme uses a play and activity-based approach to learning, with learning processes tailored to the children's needs, interests, abilities and social context. This approach's philosophy is primarily focused on providing a stimulating learning experience for the child by scheduled activities/tasks that are enjoyable and include the child in active thinking/learning. Children are seen as active entities that build their own understanding, and the teaching-learning process is that of knowledge co-construction, with adults serving as facilitators. (National Curriculum Framework for Early Childhood Care and Education, 2014)

E-learning COVID-19 pandemic has resulted to total closure of schools in about 192 countries all over the world with 91.4% of the total number of enrolled learners in these countries temporarily forced out of school (UNESCO, 2020) [3]. Online learning, according to Singh and Thurman 2019, is described as "learning experiences in synchronous or asynchronous environments using various devices (e.g., cell phones, laptops, etc.) with internet access." Students can study and communicate with professors and other students from anywhere (independent) in these environments."

Because of its broader versatility in terms of delivery, easier and more efficient access to a wider variety and greater versatility in terms of time, location, and speed and a lower financial cost, online learning has grown rapidly over the

last decade (Chen, 2010, Khurana, 2016) [2, 5]. Khurana (2016) [5] has raised concerns about the content of online learning and described the major obstacles in building an online learning environment with a high level of social interaction and involvement. Often discussed are the main challenges of online learning are social alienation, a lack of interactivity and involvement, and delayed or inadequate input. According to Song (2004) [12], there are many tools available for online education, but they can also pose a lot of issues. Students expect two-way contact, which can be impossible for teachers to accomplish. Online material is often all theoretical and does not allow for realistic use when learning effectively. In addition, the material is not tailored to the needs of each user. Students complain of a lack of culture, technological issues, and academic difficulties. Understanding educational priorities is one of the most challenging facets of online learning. Accessibility, affordability, accessibility, learning pedagogy, life-long learning, and educational policy are all problems of e-learning (Murgatroid, 2020) [8]. Kekic *et al.* (2016) [4] reports that schools losing long periods of learning due to disease outbreak can result to both temporal and permanent damage on educational system. (OECD, 2020) [9]. Teachers must also respond to modern pedagogical principles and teaching modes for which they may not have been educated.

Information and communication technology

The experience and exposure to information and communications technology (ICT) for both educators and learners can influence the use of appropriate and relevant pedagogy for online education. Any of the web sites that have been used so far include Microsoft Teams, Google

Classroom, Canvas, and Blackboard are the tools that enable teachers to collaborate, build instructional, training, and skill-development programmes (Petrie, 2020) [10]. They include options of workplace chat, video meeting and file storage that keep classes organized and easy to work. They usually support the sharing of a variety of content like Word, PDF, Excel file, audio, videos and many more. These also allow the tracking of student learning and assessment by using quizzes and other such measures. The virtual classroom platforms like video conferencing (Google Hangouts Meet, Zoom, Slack, Cisco, WebEx) and customizable cloud-based learning management platforms such as Elias, Moodle, Big Blue Button and Skype are increasingly being used. (Doucet *et al.*, 2020) [3].

Teachers perceptions

In terms of their personal lives and jobs, teachers and teacher educators are transitioning through an especially unpredictable era. (Ahmed *et al.*, 2020) [11]. Participants must be present in classes where instruction is limited to manuals and teachers' notes in the traditional system of chalk-and-board teaching. However, the introduction of technology has provided new ways where teachers and learners can obtain large amounts of information from the internet, regardless of space or learning materials (Mirriahi *et al.*, 2015) [7]. Teachers were required to adapt to online education, which required them to use a variety of multimedia tools and

services to address challenges and introduce innovative teaching and learning strategies. Teachers were expected to maintain contact with their pupils in addition to their educational objectives in order to prepare for the social inclusion of their learning groups. (Eickelmann & Gerick, 2020) Teachers were worried with allowing students to view a significant portion of the academic year's curriculum from home, so introducing (new) learning material to enhance students' cognitive activation became an obstacle. Task distinction in home schooling provided a way to reach all students via adaptive instruction, students may benefit from distance learning. Teachers' input to students on their learning success was important since student learning requires bridging the difference between expected and real results. Finally, teachers showed concerns about how testing should be done when there is a lack of teacher-student relationship. Since face-to-face contact was either non-existent or extremely restricted, online assessment became a requirement. (Konig, 2020)

Methodology

Research Design

The figure depicts the research design. The research was a mixed method study which included quantitative and qualitative methods of study. The quantitative data was collected by google forms while qualitative data was collected by google forms.

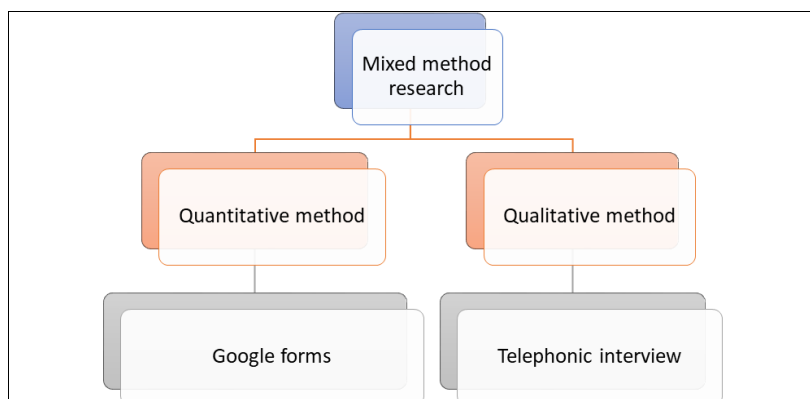


Fig 1: Research Design

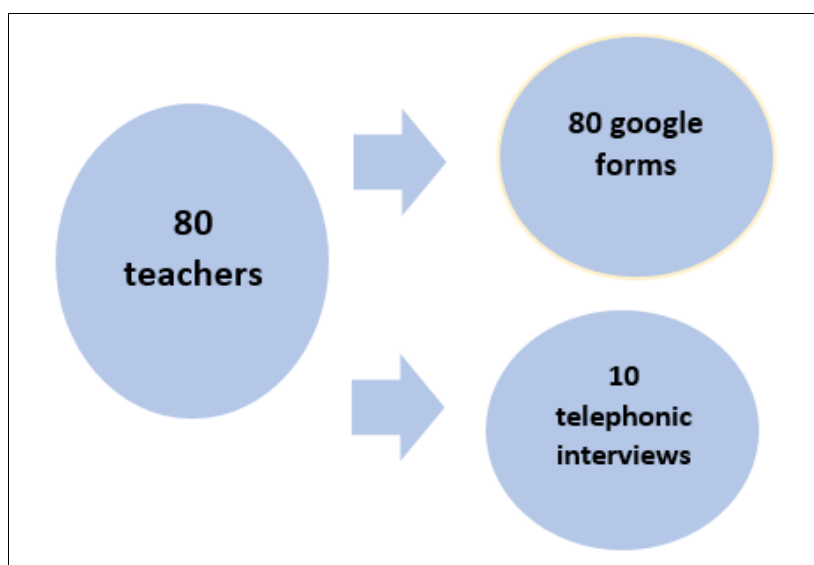


Fig 2: Sample Description

Sample

The sample was selected through snowball technique. Every teacher approached provided contacts of their colleagues which led to snowballing. 80 Teachers of three to eight year old children of different preschools of Vadodara, Gujarat irrespective of their religion, caste, SES or age were chosen for the study. All the 80 teachers were asked to fill the google form to collect quantitative data and among these 80 teachers, 10 teachers were selected for telephonic interviews to gain qualitative data.

Tool for data collection

Tool for teachers is adapted from Effectiveness of Online Teaching and Learning During Covid 19 Pandemic (2020) and Teacher Educator Needs During the Covid 19 Pandemic (2020) and was revised according to the context. The questions were taken from the tools based on themes important to the study which are as follows

- Developmentally Appropriate Practices used by teachers
- Challenges for teachers
- Experiences of teachers
- Views and expectations for post-pandemic pedagogy
- Knowledge of ICT for teachers
- Support from schools
- Views and expectations for post-pandemic pedagogy

Data Analysis

Google Forms were analyzed quantitatively by looking at the frequencies of responses for each question and on the basis of it, data was presented through graphs and pie charts. The qualitative responses gained from telephonic interview were analyzed through coding and looking at the structure of responses from which themes were extracted. Later similar themes were grouped into categories and the data was presented in a table with supporting verbatims from participants for each theme under categories to support the study.

Results

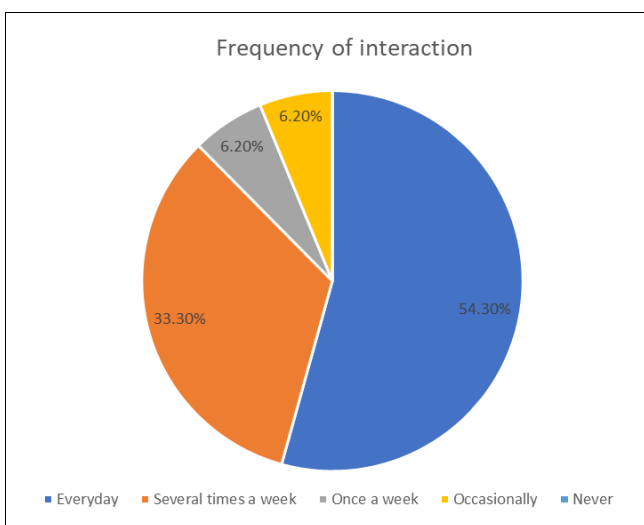


Fig 3: Frequency of interaction and feedback provided by teachers to their students (N=82)

Figure 3 depicts the responses of teachers when asked about the frequency of interaction and feedback to students by teachers during online classes. 54.3% % of teachers

confirmed to be providing feedback and interacting with students on a daily basis. 33.3% teachers reported to be providing feedback and interacting several times a week while 6.2% teachers reported to be doing it only once a week. 6.2% of total participants reported that they only provide feedback and interacted with students occasionally only if needed. No teacher reported not interacting with students during online learning.

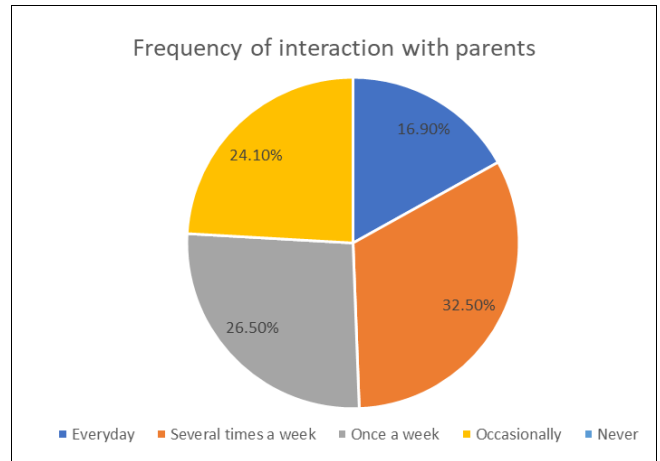


Fig 4: Frequency of interaction between teachers and parents during e-learning (N=82)

Figure 4 depicts the responses of teachers about how frequently teachers interacted with parents during online classes. 16.9% teachers reported of interacting with parents frequently while 32.5% teachers reported of interacting several times a week. 26.5% teachers reported of interacting with parents only once a week while 24.1% teachers reported of doing it occasionally.

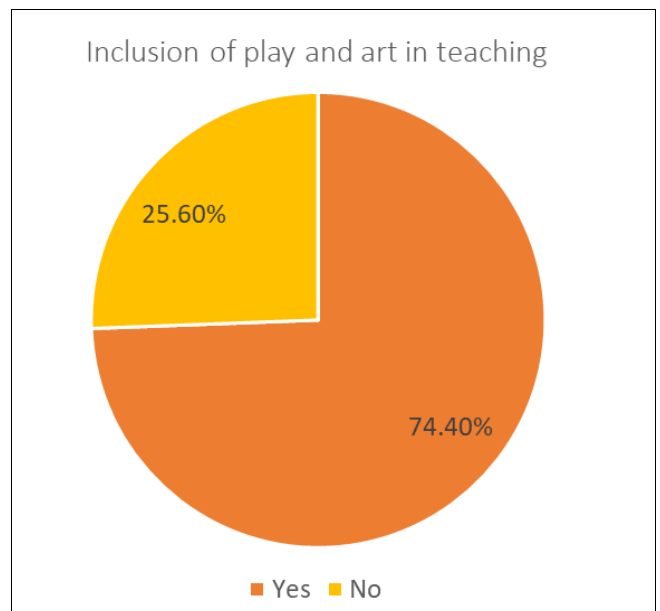


Fig 5: Inclusion of play and art in teaching process

Figure 5 represents the responses of teachers when asked if they were able to incorporate play and art activities in their teaching in online mode of learning. 74.4 % teachers reported that they were able to incorporate play and art activities in online mode of learning while 25.6% teachers reported to be incapable of incorporating play and art activities in online mode of learning for children.

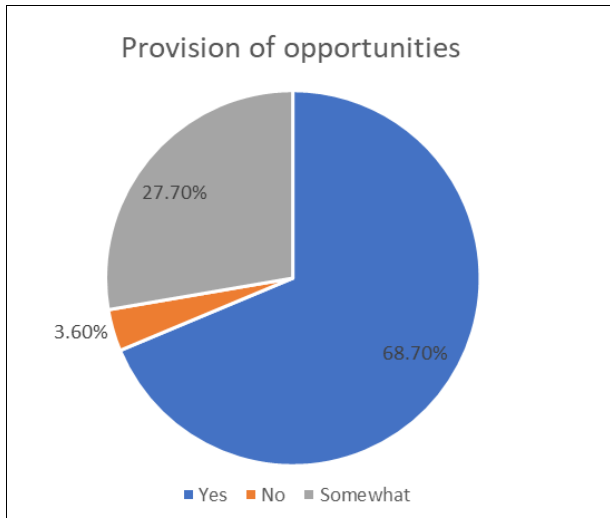


Fig 6: Provision of opportunities for students to demonstrate their learning

Figure 6 depicts the responses of teachers when asked about if they provide varied opportunities for students to demonstrate their learning in online mode. 68.7% out of 82 teachers reported to be providing opportunities for students to demonstrate their learning while 27.7% out of 82 teachers reported that they provide opportunities to a moderate extent while 3.9% out of 82 teachers denied to be providing any opportunities for students to demonstrate their learning.

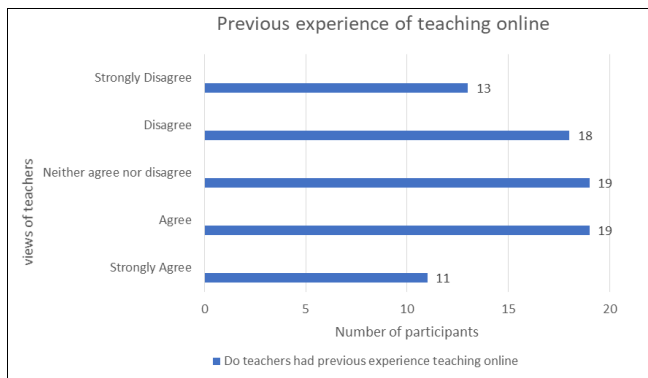


Fig 7: Previous experience of online teaching (N=80)

Figure 7 depicts the responses of teachers when asked if they have previous experiences in teaching online before pandemic. 30 out of 80 teachers agreed that they did have experience of teaching online while 19 teachers remained neutral. 31 out of 80 teachers denied of having any experience of teaching online before the pandemic.

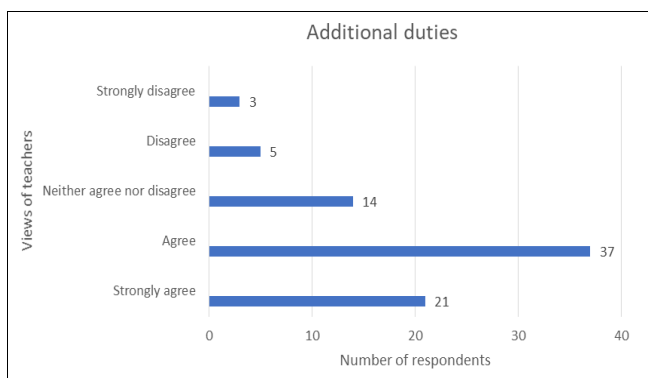


Fig 8: Other duties apart from teaching (N=80)

Figure 8 represents the responses of teachers about if they have other duties in school apart from teaching. 58 teachers that is 72.5% out of 80 teachers agreed of having other additional duties while 14 (17.5%) remained neutral. Only 10% of 80 participants that is 8 teachers denied of having any such additional work duties.

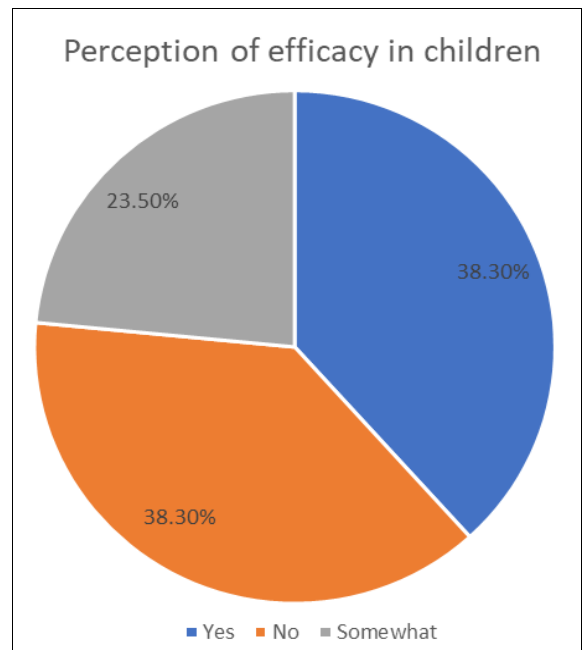


Fig 9: Perception of efficacy of children in e-learning as compared to live classes (N=82)

Figure 9 describes the experience of teachers when asked about if they feel their students learning efficiency has decreased in online learning. 38.3% teachers feel that the efficiency has reduced while the same percent of teachers i.e 38.3% feel that there is no reduction in efficiency of their students. 23.5% teachers feel that the efficiency has somewhat reduced

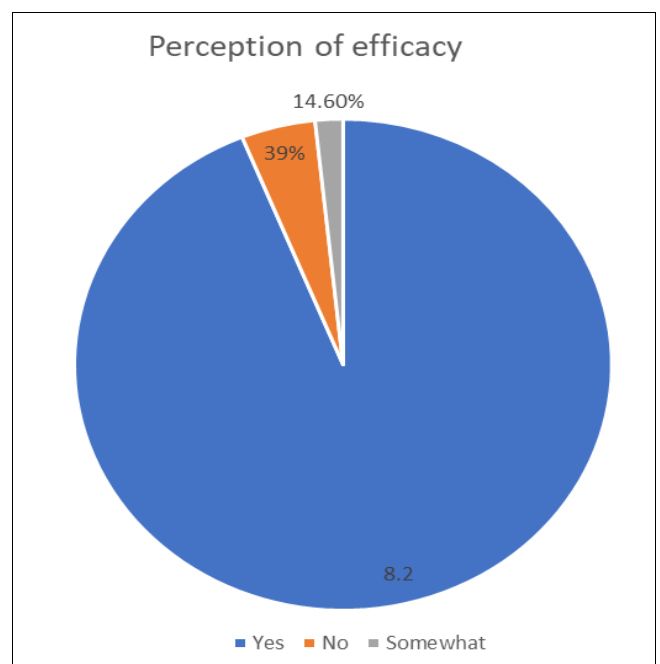


Fig 10: Perception of efficacy in e-learning as compared to live classes (N=82)

Figure 10 depicts the experience of teachers about if they have remained as effective in teaching in home learning as they were before pandemic in live classes. 46.3% teachers feel that they have remained effective in online teaching same as classrooms while 39% teachers feel that their effectiveness has been reduced. 14.6% teachers are unsure about their effectiveness.

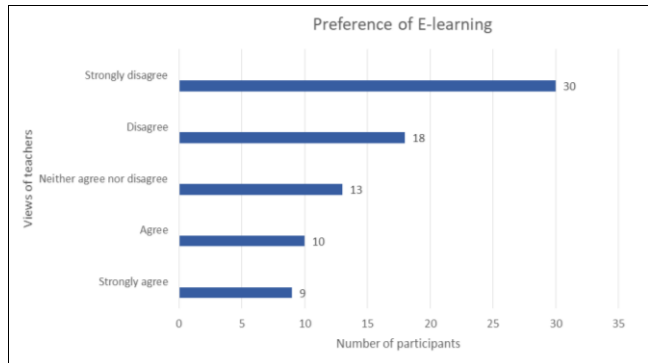


Fig 11: Preference of e-learning of participants after pandemic (N=80)

Figure 11 describes preference of teachers about conducting online classes even after pandemic. Majority of teachers that is 48 teachers out of 80 (60%) do not prefer to conduct online classes even after pandemic while 13(16.25%) remained neutral. Only 23.75% that is 19 teachers preferred to conduct online class even after pandemic ends.

Results and Discussion

- The results of the study reveal that majority of teachers reported of using developmentally appropriate practices like play way methods and art activities in remote learning to build interest of children and reduce distraction.
- Teachers reported that they experienced good amount of cooperation from parents who took active part in child’s learning.
- Teachers were not satisfied from parental feedbacks as they did not get enough chance to communicate with parents to discuss the child’s progress.
- Teachers found it difficult to give immediate feedback to students, as they said that providing feedback is possible but not as prompt as they could in live classes.
- Teachers stated that they feel the efficiency of their students has decreased as compared to live classes.
- Majority of teachers felt that they have been efficient enough even in teaching remotely as they were in live classes.
- Teachers when asked about assistance from school for remote learning, majority of them reported on receiving enough assistance from school and high assistance as well as help from colleagues. Only few teachers denied of getting required assistance from the schools they are working in.
- Majority of teachers believe that online classes are not as effective as live classroom sessions.
- Moderate number of teachers reported that they do solve doubts of students whenever necessary and provide feedbacks to them.

Teachers most of them felt that online mode is time consuming and they would not prefer taking online classes after the pandemic.

Conclusion

Covid 19 has certainly have left a very memorable impact in the field of education. While the COVID-19 epidemic had many negative effects on the world of education like unpreparedness of students, teachers and parents, technical errors, low internet bandwidth, increased workload, it also had a positive influence that could push the education sector and its approaches forward. The pandemic has paved the way for new means of transmitting education around the world. Many individuals in India don't have access to the internet, while some attend schools that aren't well-equipped yet many attempts were made to use online tools to continue schooling at all stages. Also COVID-19 has expanded the usage of emerging technology in education delivery. Institutions of education have shifted to mixed learning and enabled teachers and students to become more technology savvy. The COVID-19 pandemic has taught us that teachers and students/learners should be trained on how to use various online educational resources. When regular classes resume after the COVID-19 pandemic, teachers and students should be encouraged to continue using those online resources to improve teaching and learning.

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