



**RESEARCH PAPER**

**Experiences of Students with Visual impairment about online learning: A Phenomenological Study**

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**ABSTRACT**

The COVID-19 pandemic has become a global health issue and has significantly impacted higher education for all learners. So, learning methods and strategies were shifted to online mode. There were numerous experiences of all the individuals around the globe. To seek such experiences, this study aims to explore the experiences of students with visual impairment at higher education either from university or college. A total number of 20 students with visual impairment were taken as a sample of this study from the academic institutions of cities of Punjab. Data was collected by using semi-structured interviews. The data were analyzed by coding and thematic analysis. First five major themes appeared from the data analysis. The findings of the research showed that maximum visually impaired individuals were happy to take online classes, and they learnt to use various technological devices during their online mode of learning. However, they experienced various challenges as well.

**Keywords:** Experiences, Higher Education, Online Learning, Students with Visual Impairment, Teachers

**Introduction**

The Online mode of learning is easily accessible mode of learning that can reach to remote and rural areas with cheaper way of education with regard to low cost in transportation, accommodation and overall based learning for any institutes (Shivangi, 2020). Students independently interact with their peers and teachers through online sources in their own matrix (Singh & Thurman, 2019).

There is flexibility in learning, pedagogy are important features of online learning classes. Because a student can plan and manage their courses as per their own available time on the basis of flexibility (Dhawan, 2020). Students with visual impairment surge for enrollment at higher education level especially at colleges and universities. The sustainable and effective means of empowering individuals with visual impairment is to ensure education with universal access (Suraweera et al., 2022).

Online instructions are viewed with numerous benefits as it is a quick, cost-effective, and quite easy accessibility at distance. However, time delayed instructions between sender and receiver is contemplated in asynchronous technology which includes discussion forum recording, earlier recording of videos, and E-mail (Finkelstein, 2006).

Over the last decade, there is an explosion of online instructional delivery methods. A certain pedagogical knowledge with suitable content has been employed by online teaching and learning which is largely concerned with design and organization of creating distinctive environments and special learning experiences with digital technology or media

(Rapanta et al., 2020). But still, there is also a challenge of broadband connectivity for students in rural areas to learn through it (Muthuprasad, 2021).

However, there is problem for students with visual impairment to communicate their peers at distance due to online classes even when these students with visual impairment claim as normal. Psychological status of individual with visual impairment is affected substantially (Munaw, Tegeg, 2022).

The shift to online-teaching mode between COVID-19 was very stressful not only for students who are visually impaired but for all the students with any disability or without disability. The parents were also becoming the victim because they have to arrange home schooling for their children. Teachers were also not trained to teach online but when faced the pandemic, everyone equipped themselves with the necessary stuff and trainings.

Therefore, this study aimed to explore the experiences of visually impaired students during the transition to online teaching mode.

### **Literature Review**

According to Hashish et al., (2022), there is moderate satisfaction about online learning experience in students. Education through online modes is growing steadily around the globe with modern internet adoption, merging of new technology, requirement of various trained sources (Palvia, 2018). It is clear that as young students with visual impairment progress to higher education, online learning will become a natural part of their educational experience. According to Henaku (2020), in education colleges of Ghana, platforms of online learning and social media were utilized to implement teaching and learning. Internet connection problems, high cost availability of internet, and challenges to use devices were major difficulties for students. But, students with visual impairment were not able to take help regarding note taking and other support from their sighted peers (Global Voices, 2020).

It does not clarify the concepts properly, material insufficiency, web pages interfaces, internet inaccessibility, unavailability of online instruction in Braille version. Therefore, students with visual impairment are not compensated adequately (Michael et al., 2021). American Foundation for the Blind (2008) indicated that significant problems have been posed by online educational tools and its features. Factors include virtual learning are network-based services, content delivered through interaction with digital media, online support for getting support of the tutor, internet, extranet, games, clouds, simulators, broadcast through satellites, and platforms offering web (Schutt & Linegar, 2013).

Screen reader tools are used by visually impaired individuals to use the Internet. Screen readers can only narrate online pages successfully if they are built to be compatible with screen readers, which may not be the case for all web sites (Permvattana, Armstrong, & Murray, 2013).

It also includes other factors which are poor infrastructure of ICT, improper training of ICT instructors, poor financial resources, shortage of staff, low motivation by teachers and students and high cost material (Sarker, 2019).

According to Arkorful and Abaidoo, (2014), self-pacing is allowed online learning in which every student study quick or slow at own pace. Learning opportunities are provided for collaboration, interaction, and flexibility through the implementation of online learning environments (Gedera, Williams & Wright, 2013). Approach towards teaching and learning is being changed by online education or e-education (Palvia, 2013).

## **Material and Methods**

### **Research Design**

This was exploratory research which was qualitative in nature.

### **Population of the Study**

The population of this study was all the students with visual impairment who had attended online classes during the period of pandemic.

### **Sample of the Study**

The sample of the study were students with visual impairment (N=20) who had attended online classes during the period of lockdown. These students were from higher education level including college and university level. Out of total 20 students, 12 were males and 08 were females. The researcher collected data to get the perspective of both genders.

### **Inclusions Criteria**

1. Only students with visual impairment were recruited as the sample of the study.
2. Only those students provided the data that have experienced the online learning/Classes.

### **Sampling technique**

The sampling technique was purposive sampling technique for data collection. In this technique, the researcher selected that part of the population who serve the purpose of their study. Therefore, students with visual impairment were selected as sample who had attended online classes.

### **Data Collection**

The data was collected through semi-structured interview. The researcher visited the respondents physically for the purpose of data collection. To collect the data, total seven questions were asked

### **Data Analysis**

After collecting the data, interview responses were transcribed for the purpose of coding & thematic analysis. Thematic analysis is a technique that can be used to analyze the qualitative data. In this technique, the researcher goes through the data carefully and then found the common answers provided by the respondents. The common answer then transform into major themes. After taking out the major themes out of all the scattered data, categories appeared out of these major themes. the researchers explained all the categories in detail with sub-themes in response to the research questions.

While analyzing the data, the researcher created frequencies available for each category. The themes helped to answer the research questions that were developed in the study as a result of the objectives.

### **Procedure of the study**

The study started with the selection of a topic that was really needed due to its significance. Additionally, researcher is also facing the same visual challenge. He wanted to see that how his fellows with visual impairment experienced the challenge of transition from face to face to online classes.

After the selection of topic, literature was reviewed accordingly. On the basis of literature review, the gap was identified in present and previous researches. Then the research questions were developed.

After developing the instrument, the researcher started to collect data through recorded questions by complying all research ethics. Then the data collected through interviews were transcribed. After collecting the data, thematic analysis was done on the base of interview transcription. In this technique, the researcher goes through the data carefully and then found the common answers provided by the respondents. The common answer then transforms into themes. After taking out the themes out of all the scattered data, the researchers explained all the themes in detail and by relating with the research questions.

After interview transcription, the data was analyzed by using thematic analysis. The thematic analysis contained categories and sub-themes to represent the collected information. From which, major themes were drawn to reach to the finding and the conclusion.

## Results and Discussion

### Qualitative Data Analysis

#### Coding and Thematic Analysis

The data analysis was done on the base of interview transcription. This interview After taking the data through semi-structured interviews protocol, the data was accumulated into interview transcription. It contained two parts i.e, demographics and the answers of the respondents. The data analysis of the demographics has been given below:

**Table 1**  
**Frequencies Distribution of the Respondents by their Districts**

District	Sample	Frequency
Lahore	14	70%
Bahawalpur	06	30%
Total	20	100%

Table 1 shows that district Lahore contained 70% of the respondents and Bahawalpur district contained 30% of the respondents. it means that maximum respondents belong to Lahore district with 70% respondents.

**Table 2**  
**Frequencies Distribution of the respondents by Qualification**

Qualification	Respondents	Frequency
B.A/BSc	11	55%
M.A	08	40%
M.Phil	01	5%
Total	20	10%

Table 2 shows that respondents with B.A/BSc degree were 55% while respondents having the degree of M.A were 40%. However, only one respondent was with the degree of M.Phil 5%. It means that maximum respondents were only graduate 70%.

The data analysis of the semi-structured interviews was based on interviews transcription. There were total 10 major themes which have been emerged from various categories and the categories were drawn from the interview transcription of the responses collected from the respondents.

## **Coding and Thematic Analysis**

### **Theme 1: Positive Experiences**

This theme has been emerged from the response of the students with visual impairment regarding their positive experiences during online classes. The positive experiences of students with visual impairment have been mentioned below in categories. These positive experiences were the part of their all teaching and learning process during COVID-19. Learning opportunities has been impacted by the COVID-19 pandemic particularly for them who were in peer interactions or in bulky groups (Kumar et al., 2021).

#### **Category 1: Caring the Disability**

In response to question one of the researches, the category one emerged from the response of respondents. Only 3 of 20 students with visual impairment responded that their teachers did not care about their disability during online classes held in the pandemic COVID-19. They also contributed more in response to the question that teachers did not provide the data into soft form. Therefore, 15% of the students with visual impairment from higher education level responded that their teachers did not care about their disability during online classes.

#### **Category 2: Learning of Technology**

This category has been emerged from the response of the respondents. There were 6 of 20 visually impaired who responded that they learnt much about technology during online mode of learning classes. It means that 30% of visually impaired students learnt to use technology and numerous applications i.e. android, zoom, google meet and etc.

#### **Category 3: Learning at Home**

Only 7 of 20 students with visual impairment responded that it was good to spend at home. They learnt well at home because this was time of very hot weather. For this reason, they regarded online classes best for learning at home. Therefore, 35% of students with visual impairment were satisfied about online classes conducted at home during very hot weather.

#### **Category 4: No Experience**

Only 2 of 20 visually impaired students responded that there was no such experience during online class for him. The reason may be of poor learning attitude or perception about online class. These respondents preferred physically classes. However, only 10 % of the students with visual impairment responded about no experience through online classes during COVID-19.

#### **Category 5: Teacher's Support**

Only 2 of 20 students with visual impairment responded that their teachers cooperated well with them during online classes. It means that 10% of the respondents were satisfied from online classes and their teachers who supported them by provision of proper notes, helping in using technology recorded lectures and other aspects of classes.

### **Theme 2: Negative Experiences**

This theme has been appeared from the response of students with visual impairment regarding their negative experiences during online classes. The categories include poor concept clarification, untrained teaching team, network connectivity issues, poor development of latent skills and motivational deprivation among teachers and students. Previous studies depicted that there is significant correlation between the perception of

students regarding the anatomy of their teachers and his support for learning at self-regulations (Schuitema et al., 2016).

#### **Category 1: Poor Concept Clarification**

5 of 20 students with visual impairment responded that their concepts were not cleared by their teachers properly in online sessions. They better choiced physical classes. It means that 25% of the visually impaired students were agreed on poor concept clarification during online classes.

#### **Category 2: Untrained Teaching Team**

3 of 20 visually impaired students responded that teachers were not trained properly to deal the students through online classes. This has been occurred due to lack of training for teachers to deal the students with visual impairment during online classes. It means that 15% of visually impaired students were agreed on the perspective that teachers were not trained properly to deal the students with visual impairment during online classes.

#### **Category 3: Network Connectivity Issues**

6 of 20 visually impaired students responded that internet connection was the major problem for them to stay connected for online class. Poor internet connection in the area became big trouble for students with visual impairment. It means that 30% of the visually impaired students highlighted the problem of internet connectivity during their online class.

#### **Category 4: Poor Development of Latent Skills**

2 of 20 visually impaired students responded that there was no development of our hidden skills i.e. confidence building, creative writing skill, communication development and personality development. These skills are sharpened through physical classes but were lacking in online classes. Therefore, 10% of visually impaired students described the no development of skills for personality development during online classes.

#### **Category 5: Motivational Deprivation**

4 of 20 visually impaired students highlighted that attitude of teachers and students was not appropriate for classes especially online. Few teachers avoided to take classes on time or they did not show proper interest for teaching during online classes. This resulted in lack of interest among students to take online class. It means that 20% of the visually impaired students responded that motivation was disappeared among teachers and students during online classes.

### **Theme 3: Feelings of Students with visual impairment**

The third major theme has been emerged from the response to the question "What were the primary feelings of students with visual impairment when They got information about the transition to online mode?". This theme depicts the feeling of the students with visual impairment regarding online classes. There is an increase in the global burden of functional visual impairment during Online learning resulted by COVID-19 (Fan et al., 2021).

#### **Category 1: Excitement**

8 of 20 visually impaired students responded that they were much excited and happy when their online classes started. It was very first experience of these students with visual impairment. It means that 40% of the students felt happiness when they came to know about their online mode of learning during COVID-19.

**Category 2: Depression**

6 of 20 students with visual impairment accepted that they were depressed when they listened for the first time to take online classes due to COVID-19. It means that 30% of the visually impaired students were not happy and they were depressed of listening about taking online classes through online mode.

**Category 3: Weird Perception**

6 of 20 visually impaired students responded that they had weird perception initially when they came to know about online classes. This was very strange for them how online classes will be conducted during COVID-19 in Pakistan. According to their understanding, Pakistan is very far behind from modern technology supportive to visually impaired students. Therefore, 30% of visually impaired students responded strangely about online classes.

**Theme 4: Differences between Two Semesters**

This theme reflects the response of the respondents about differences of taking online classes during 1<sup>st</sup> semester and 2<sup>nd</sup> semester. The theme has been emerged from the differences of online classes which students with visual impairment felt during 1<sup>st</sup> and 2<sup>nd</sup> semesters. There was a challenge for universities during COVID-19 which has impacted for the provision of those setting of online teaching and learning which could be supportive and applicable for the sake of quality learning of students (Fabrizz et al., 2021).

**Category 1: Dealing of Online Classes**

15 of 20 visually impaired students responded that 1<sup>st</sup> semesters was not easy while taking online classes as compare to 2<sup>nd</sup> semester. This was because of lack of experience in handling the applications and software's both by teachers and visually impaired students. There were many difficulties in 1<sup>st</sup> semester but 2<sup>nd</sup> semester was quite better as people were experienced in this semester. It means that 75% of the visually impaired students responded that huge difference was there in 1<sup>st</sup> and 2<sup>nd</sup> semester online classes.

**Category 2: Enthusiasm**

4 of 20 students with visual impairment responded that both teachers and visually impaired students were enthusiastic to conduct online classes in 1<sup>st</sup> semester. But, this enthusiasm was vanished away in 2<sup>nd</sup> semester due to lacking in enthusiasm. Therefore, 20% of the students responded that 1<sup>st</sup> semester was better because of responsible behavior of students with visual impairment and teachers as compare to 2<sup>nd</sup> semester.

**Category 3: Knowledge Deprivation**

Only 1 of 20 visually impaired student responded that physical classes were better as compare to online classes. Online classes has deprived our knowledge. We learnt a lot in physical classes. It means that only 5% of the visually impaired students responded that knowledge gaining was better in physical classes as compare to online classes. So, no such learning was acquired in both semesters through online mode.

**Theme 5: Teacher's Role**

This theme has been taken from the responses of the students with visual impairment which they depicted about the role of the teacher during online classes. It includes teachers as assignment giver only, teacher as a facilitator, and teacher's behavior. Online teaching had been introduced during the lockdown. Great concern has been shown by teachers regarding contemporary unprecedented situation of teaching (Ozamaz et al., 2021).

**Category 1: Assignment Giver**

9 of 20 visually impaired students responded that teachers gave only assignment during online classes. This damaged the learning of visually impaired students especially. It means that 45% of the students with visual impairment responded that teachers were only assignment giver.

**Category 2: Teacher as a Facilitator**

7 of 20 visually impaired students responded that teachers were facilitator for them. These visually impaired students explained more that they were much cared and supported by their teachers during online classes. It means that 35% of visually impaired students responded that teachers helped them during online classes as a facilitator.

**Category 3: Teachers Behaviour**

4 of 20 visually impaired students indicated the behavior of the teachers while taking online class. Some teachers depicted irritation from visually impaired students when these students asked questions through online mode of learning. Some teachers responded well and some teaches did not take online classes seriously. It means that 20% of the visually impaired students described the teacher's behavior with them in numerous ways.

**Theme 6: Psychological States**

This theme has been emerged from the responses of visually impaired students regarding the psychological states which they faced as an impact of isolation at their learning during online classes. This theme has been taken from the categories of isolation, virtual learning and personality development. Psychological distress is a risk for university students in the situation of occurring again any traumatic events. There was uncertainty in the pandemic's evolution and it may have long term effects on intellectual health (Villani et al., 2021).

**Category 1: Isolation**

18 of 20 visually impaired students responded that they were socially isolated while taking online classes. This has impacted their learning and active participation in class. It means that 90% of the visually impaired students declared that online classes increased the state of social isolation which reduced their peer tutoring, learning environment and other aspects of physical class.

**Category 2: Virtual Learning**

1 of 20 visually impaired students responded that he has learnt a lot during these online classes due to virtual classes. It means that only 5% of the respondent responded that virtual learning gave benefit to students with visual impairment during online classes.

**Category 3: Personality Development**

1 of visually impaired student responded that he tried to develop his personality by reading books, learning of various skills and other aspects of personality development including communication skill etc. It means that 5% of visually impaired students developed their personality by working on it during online mode of learning.

**Theme 7: Suggestions**

This theme has been emerged from the suggestions made by students with visual impairment in response to the last question of the research. The suggestions include provision of assistive devices to students with visual impairment, accessibility software for students with visual impairment, high speed internet and motivation by teachers. Students



learn from numerous factors of motivation. Some of them are extrinsic or intrinsic (Johnson, 2017).

### **Category 1: Assistive Devices Provisions**

3 of 20 visually impaired students suggested that free computers, laptop and mobile phone should be provided to students with visual impairment by government for the purpose of online classes to enhance their learning. It means that 15% of visually impaired students endorsed on provision of necessary devices by government for online mode of learning.

### **Category 2: Accessibility Software's**

4 of 20 visually impaired students responded that accessible software should be provided by the college/university. So that visually impaired students could take benefit of online classes. It means that 20% of visually impaired students suggested the accessibility software for complete access on online applications of classes.

### **Category 3: High Speed Internet**

8 of 20 visually impaired students responded that high speed internet should be provided to students with visual impairment. Because the slow speed of internet becomes hurdle in the online learning of students with visual impairment. Therefore, 40% of visually impaired students suggested to improve the speed of internet for better learning through online classes.

### **Category 4: Teachers Motivation**

5 of 20 visually impaired students responded that teachers should motivate their students by using apex level teaching methodology and courage. It means that 25% of the visually impaired students suggested the use of motivation by teachers.

## **Findings**

### **Positive and Negative Experiences**

1. Maximum visually impaired students learnt to use assistive technology devices i.e mobile and computers application etc during online mode of learning.
2. Fewer visually impaired students were not provided by data in software during online classes. Their teachers did not care about their challenge in learning due to visual impairment.
3. Majority of visually impaired students found online classes as good protection against very hot weather. Especially, when they attended all online classes at home.
4. Fewer visually impaired students were provided with support during online classes by their teachers. This indicated that majority of the visually impaired students were not provided with the support.
5. Fewer visually impaired students preferred physical classes as compare to online classes due to poor clarification of the concept in online learning.
6. Fewer students with visual impairment found that their teachers were not trained properly for online classes.
7. Maximum visually impaired students experienced internet connectivity problem.

8. Fewer students with visual impairment explained that their teachers were not able to work on their latent skills i.e confidence building, creative writing skill, communication development and personality development during online classes.
9. Maximum students with visual impairment faced lack of motivation among their teachers and their fellows during online classes. This became reasons for demotivation among them.

### **Feelings from Students with visual impairment**

1. Majority of the visually impaired students were happy and excited to know about their online classes because it was their first experience in life to take online classes.
2. Fewer visually impaired students were worried about taking classes online. These students were depressed because they had preferred online physical classes as compare online classes.
3. Fewer students were surprised to listen about online classes. It was very strange for them to take classes through online mode.

### **Differences in Two Semesters**

1. Majority of visually impaired students experienced difficulties in 1<sup>st</sup> semesters as compare to 2<sup>nd</sup> semesters.
2. Fewer visually impaired students felt that teachers and students were enthusiastic during 1<sup>st</sup> semesters but in 2<sup>nd</sup> semesters, they were not much enthusiastic.
3. Fewer visually impaired students declared that students with visual impairment were deprived of knowledge because of poor access to online classes.

### **Role of the Teacher**

1. Maximum visually impaired students founded only assignment by teachers during online classes.
2. Maximum visually impaired students responded that their teachers facilitated them during online classes.
3. Fewer visually impaired students declared that teachers were irritated from students with visual impairment during online classes while giving answers.

### **Psychological States**

1. Maximum visually impaired students accepted that they were socially isolated during online classes.

### **Suggestions to Improve Online Classes**

1. Fewer visually impaired students suggested that assistive technological and assistive devices should be provided by the college and university to visually impaired students for online classes.
2. Maximum students with visual impairment recommended that high speed internet should be provided to visually impaired students for online classes.
3. Maximum visually impaired students suggested that motivation should be used by teachers for students with visual impairment during online classes. it will impact the learning of visually impaired students.

## Discussion

Students with visual impairment at higher education level experiences various situations during COVID-19 through online mode of learning. These experiences were distributed into positive and negative. From the perspective of experiences, visually impaired students used assistive technology but such technology and its necessary software were not provided to students by their college or university. Many aspects of life in the society are dependent on the technological and computers-based devices, system and solutions including commerce, industry, research, government, medicine, education, entertainment, and communication (Stavrakakis et al., 2021). These online classes were good at home as a protection from hot weather. According to Aschenberger et al., (2022), positive wellbeing and low stress level has been reported by students in their learning sessions during the period of lockdown.

Additionally, teachers were not properly trained for taking online classes of visually impaired students. However, teachers and students responded well during the pandemic but they were not familiar with teaching & learning process through online mode (Saha et al., 2021).

There was an issue of internet connectivity during online classes. The most amendable in alleviating challenges technology from all available technologies during COVID-19 is the Internet supported for learning (Faturoti, 2022).

Moreover, there was an excitement between visually impaired students about listening of online classes. However, some of visually impaired students were also worried about taking online classes. They preferred physical classes as compare to taking classes through online mode of learning. Online learning as substitute of physical classes implicated on variations on contractual agreement especially for contractual performances (Faturoti, 2022).

This is also to be highlighted here that there was much difference of taking classes through online in 1<sup>st</sup> semester and 2<sup>nd</sup> semester. Teachers were energetic in 1<sup>st</sup> semester in teaching but they were not much excited in 2<sup>nd</sup> semester. Students with visual impairment found their learning well in 1<sup>st</sup> semester but they claimed deprivation of knowledge in 2<sup>nd</sup> semester. The role of technology has been deepened by COVID-19 which has also appeared as an education enabler. In Germany and U.K, there is no access to a desktop, laptop, tablet and the Internet for lower-earning individuals or learners (Coleman 2021; Woessmann et al., 2020).

Students with visual impairment found their teachers as facilitator during online learning mode. This helped in learning or increasing of knowledge for some of visually impaired students. However, (Affum, 2022) founded that The improvement of learning outcome is based on the maximum use of internet. There is also a negative impact of the use of internet in which students spend more time that becomes the reason of distractions from their studies.

## Educational Implications

This study is unique in nature because this study is very useful in understanding the problems of students with visual impairment while taking online classes. This study is about the experiences of students with visual impairment about online learning. This study gives a comprehensive description regarding the experiences of students with visual impairment and for this reason, teachers of students with visual impairment can use appropriate teaching methodology for students with visual impairment in future.

This phenomenological study gives rise to the thoughts that how visually impaired students can be supported for online classes and what are their problems while taking online classes. This study will be useful for parents and family members as well that how to support

their son or daughter at home while taking online classes. Additionally, this study will be useful for those creative ideas developers who work for supporting students with visual impairment educationally.

Moreover, this study is useful for students with visual impairment that how to take tackle all problems or various situations in the future if they are guided to take any online class in any situation.

### **Conclusion**

To sum-up the study, it can be said that various experiences have been practiced by students with visual impairment through online classes. There were differences of feelings among students with visual impairment. Both of the semesters were quite different from each other. Teachers reflected themselves with multiple roles. For example, at some stage, teachers were facilitator and on other place, they were quite unfamiliar with their students with visual impairment. It also depicts the role of teachers as an active participants in online class. However, on the other hand, teachers were just assignment giver as well.

Additionally, the feeling of social isolation impacted the learning of the students with visual impairment by making them isolate during the period of COVID-19. But overall, the challenge of online learning in COVID-19 gave unmeasurable experiences by making them aware of online technology, understanding the behaviors and developing of self-personality.

### **Recommendations**

Followings are the recommendations of the study:

1. Students with visual impairment should be facilitated with modern assistive technology i.e., laptops computers, and mobile phones by their respective departments.
2. Teachers should be trained and well prepared for online classes in case of any future pandemic or situations to facilitate the students with visual impairment appropriately.
3. Govt. should provide suitable internet connection to all students with visual impairment around the state for better and quality learning while online classes.
4. Teachers and students with or without visual impairment should be provided with motivational lectures during online classes to maintain standardized teaching & learning process.
5. All the educational institute should make firm educational policy regarding online classes for not creating any educational gap or delay in the learning of students with visual impairment.

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