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Accessibility to online education of undergraduate students in Kerala during COVID-19 pandemic period

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Abstract

The influence of Covid-19 pandemic had brought drastic changes in the educational field. This study aims to discover the accessibility to online education of undergraduate students in Kerala during Covid-19 pandemic period. The survey method was conducted on 160 undergraduate students in Kerala. The findings of this study revealed that most of the students have access to online education. The results showed the requirements of relevant training to teachers and students to adapt with the integration of technological tools for ensuring the continuous success in delivering learning resources and online education during this covid-19 pandemic time.

Keywords: Online education, COVID-19 pandemic period

Introduction

The COVID-19 pandemic had brought drastic changes in the ways of life, the most influenced field being the educational field. It caused several schools and colleges to remain temporarily closed and changed education from Face-to-face situation to distance mode. Educational activities have changed to online activities offering course material, classes, and evaluations through online mode. But the advantage of this paradigm shift is that the educational institutions accepted the new technology that was previously resistant to adapt.

Need and significance

Students had to face severe problems with the closure of educational institutions which changed the mode of delivery of classes, the structure of learning, interaction with peers, assessment and examination. The institutions use various software/apps such as Google Classroom, Zoom, and WebEx to take online classes. This made the stakeholders to cope up with the online learning skills and technology. This study identifies the various online learning challenges faced by the students and finds the possible solutions for them.

Statement of the problem

This study is stated as “Accessibility to online education of undergraduate students in Kerala during COVID-19 pandemic period”.

Operational definition of key terms

Accessibility to Online education is described as the quality of easiness to obtain or use learning experiences using various electronic devices such as computers, laptops, smartphones etc. with internet availability in synchronous or asynchronous mode.

Objectives

The present study is designed with the objective

- To identify the access to online education of undergraduate students of Kerala.
- To identify the preference of undergraduate students with respect to
 - mode of teaching
 - communication

Methodology

Method adopted

The normative survey method was used for the study.

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Sample

Sample for the study consists of 160 undergraduates from Kerala.

Tools used

The used was Questionnaire on perception of students on online education.

Statistical techniques used

The main statistical technique employed was the computation of percentage.

Analysis and interpretation of data

Availability of the device for attending online classes

Table 1: Availability of the device

| Category | No. of responses | Percentage |
|----------|------------------|------------|
| Yes | 160 | 100 |
| No | 0 | 0 |
| Total | 160 | 100 |

Table 1 above shows that 100% of undergraduate students have the device for attending online classes. The pictorial representation is as shown in Figure 1

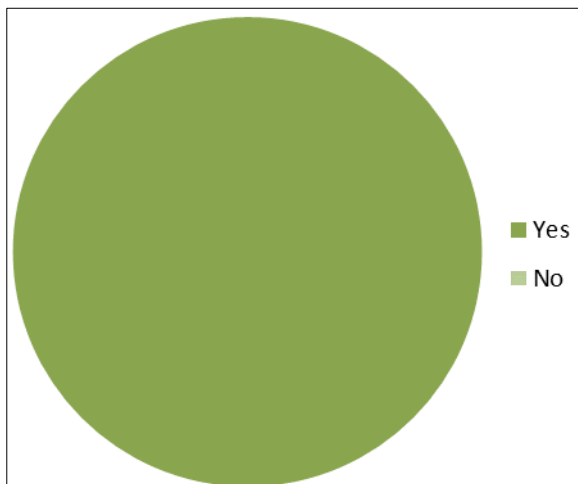


Fig 1: Availability of the device

The study shows that all undergraduate students have device for attending online classes.

Type of devices used for online classes

Table 2: Types of devices used for online classes

| Category | No. of responses | Percentage |
|--------------|------------------|------------|
| Desktop / PC | 8 | 5 |
| Laptop | 44 | 27.5 |
| I-pad | 8 | 5 |
| Smart Phone | 100 | 62.5 |
| Others | 0 | 0 |
| Total | 160 | 100 |

Table 2 indicates that 62.5% of students are using smartphones for attending online classes, 27.5% of students are using a laptop for attending online classes and others are using Desktop/PC and i-pad for attending online classes. The pictorial representation is as shown in Figure 2

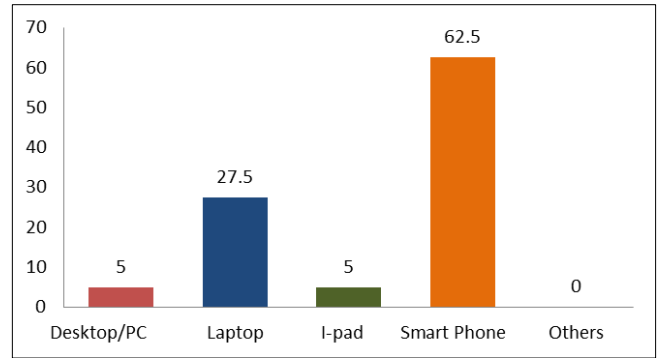


Fig 2: Types of devices used for online classes

The study shows that the majority of undergraduate students use smartphones for attending online classes.

Accessibility to the internet

Table 3: Accessibility to internet

| Category | No. of responses | Percentage |
|----------|------------------|------------|
| Yes | 152 | 95 |
| No | 8 | 5 |
| Total | 152 | 95 |

Table 3 shows that 95 % of students have accessibility to the internet and 5% of students don't have accessibility to internet for attending online classes. The pictorial representation is as shown in Figure 3.

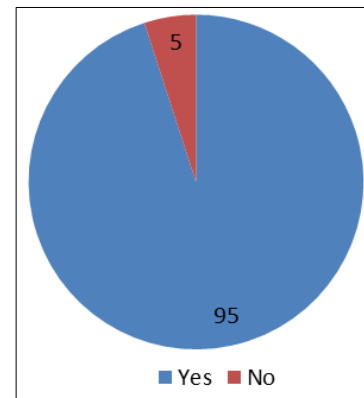


Fig 3: Accessibility to internet

The result shows that most of the respondents have internet accessibility. But still some students do not have accessibility to internet for attending online classes.

Internet connectivity

Table 4: Internet Connectivity

| Category | No. of responses | Percentage |
|-------------------------|------------------|------------|
| Cellular service | 80 | 50 |
| BSNL Broadband | 48 | 30 |
| Cable Broadband | 20 | 12.5 |
| Optical Fiber Broadband | 4 | 2.5 |
| Others | 8 | 5 |
| Total | 160 | 100 |

Table 4 reveals that 50% undergraduate students use cellular service for attending their online classes. 30% of the

students use BSNL Broadband and 12.5 % use Cable Broadband connection. Very few have accessibility to optic cable connections and other facilities.

The pictorial representation is as shown in Figure 4.

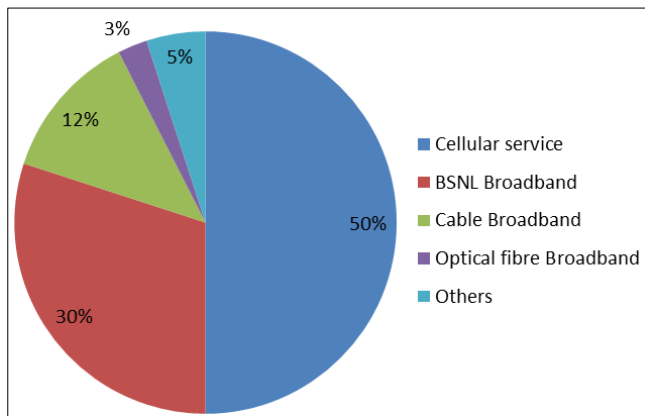


Fig 4: Internet Connectivity

The study shows that the majority of under graduates’ students use cellular services for internet connectivity for attending online classes.

Quality of internet connection

Table 5: Quality of Internet Connection

| Category | No. of responses | Percentage |
|----------|------------------|------------|
| Good | 52 | 32.5 |
| Average | 100 | 62.5 |
| Poor | 8 | 5 |
| Total | 160 | 100 |

Table 5 shows that 62.5% have average quality of internet connection and 32.5 % of respondents have a good quality of internet connection and 5% of the undergraduate students have poor quality of internet connection.

The pictorial representation is as shown in Figure 5.

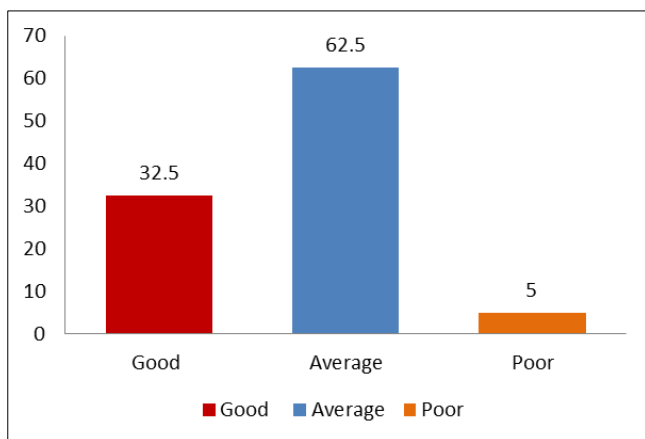


Fig 5: Quality of Internet Connection

The study shows that the majority of the respondents have average quality of internet connection.

Technical knowledge regarding the usage of software/ applications for online classes

Table 6: Technological Knowledge of Software/App for online classes

| Category | No. of responses | Percentage |
|-----------|------------------|------------|
| Excellent | 44 | 27.5 |
| Moderate | 100 | 62.5 |
| Poor | 16 | 10 |
| Total | 160 | 100 |

Table 6 shows that 62.5 % of the respondents have moderate technical knowledge regarding the usage of online applications and 27.5 % of the respondents have excellent technical knowledge. 10% of students lack technical knowledge for attending online classes.

The pictorial representation is as shown in Figure 6.

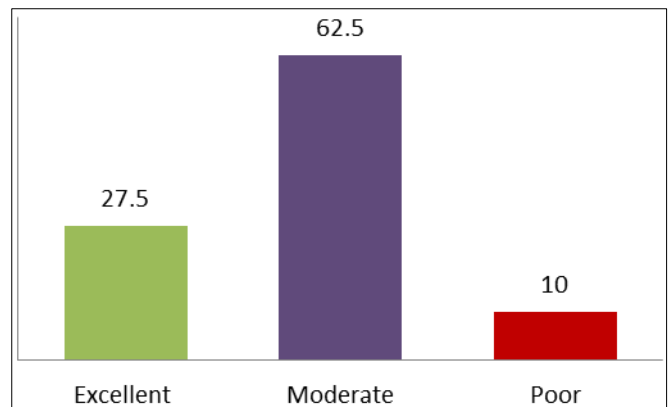


Fig 6: Technological Knowledge of Software/App for online classes

The study shows that students still lack technical knowledge regarding the usage of online applications such as Google meet, Zoom, Webex etc. This point to the need for training and orientation required for the undergraduate students for attending online classes.

Mode of Delivery of Learning Resources from Educational Institution

Table 7: Mode of Delivery of Learning Resources

| Category | No. of responses | Percentage |
|------------------|------------------|------------|
| Moodle | 36 | 22.5 |
| Google classroom | 48 | 30 |
| Whatsapp | 68 | 42.5 |
| E-mail | 5 | 3.13 |
| Others | 3 | 1.88 |
| Total | 160 | 100 |

Table 7 indicates that 22.5 % of the respondents are using Moodle platform and 30% are using Google Classroom for accessing their learning resources. 42.5 % of the respondents are receiving learning resources from their educational institution through Whatsapp, 3.13 % through E-mail and 1.88% through other platforms.

The pictorial representation is as shown in Figure 7.

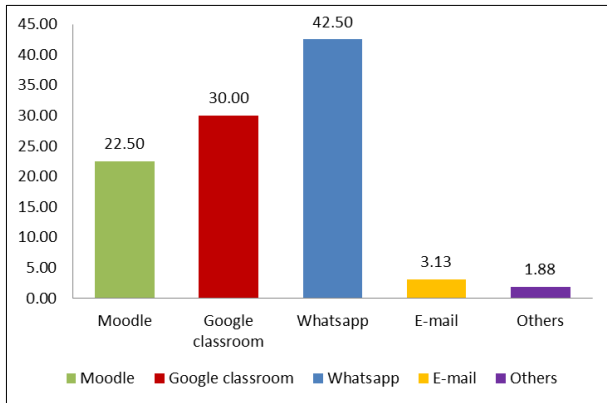


Fig 7: Mode of Delivery of Learning Resources

The study shows that many of the respondents are receiving the education resources from their institution through Whatsapp platform. This implies the need for providing the education resources through Learning Management Systems so that there will be standard and structured organisation and delivery of Learning resources.

Platform used for clarification of doubts

Table 8: Platform used for clarification of doubts

| Category | No. of responses | Percentage |
|--------------|------------------|------------|
| Online Class | 60 | 37.5 |
| Whatsapp | 92 | 57.5 |
| Others | 8 | 5 |
| Total | 160 | 100 |

Table 8 indicates that 57.5 % of the respondents are clarifying their doubts through Whatsapp, 37.5 % of the respondents are clarifying their doubts in the online class itself and only 5% of respondents are using other platforms for clarifying their doubts.

The pictorial representation is as shown in Figure 8.

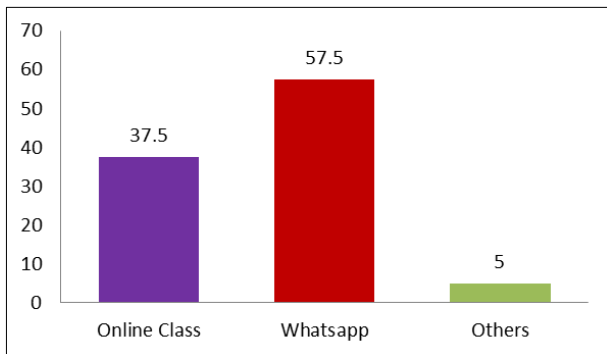


Fig 8: Platform used for clarification of doubts

The study shows that the majority of the respondents are clarifying their doubts through Whatsapp. Students must be encouraged to clarify their doubts through online classes and discussions forums.

Mode of Evaluation

Table 9: Mode of Evaluation

| Category | No. of responses | Percentage |
|------------------|------------------|------------|
| Moodle | 9 | 20 |
| Google forms | 4 | 10 |
| Google classroom | 8 | 20 |
| Others | 19 | 47 |
| Total | 40 | 100 |

Table 9 indicates that 22.5 % of the undergraduate students responded that they are being evaluated through Moodle platforms and 10% by Google forms and 20% by Google classrooms. 47.5% of the students responded that they are evaluated through other assessment platforms.

The pictorial representation is as shown in Figure 9.

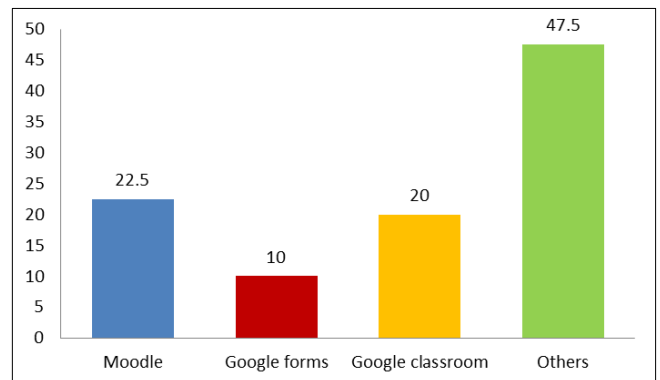


Fig 9: Mode of Evaluation

The majority of the students are evaluated through assessment platforms other than Moodle, Google forms and Google classrooms.

Most preferred mode of classes in online

Table 10: Preferred mode of classes

| Category | No. of responses | Percentage |
|------------------|------------------|------------|
| Live classes | 92 | 57.5 |
| Recorded classes | 68 | 42.5 |
| Total | 160 | 100 |

Table 10 reveals that 57% respondents preferred Live classes and 43% of respondents preferred recorded classes.

The pictorial representation is as shown in Figure 10.

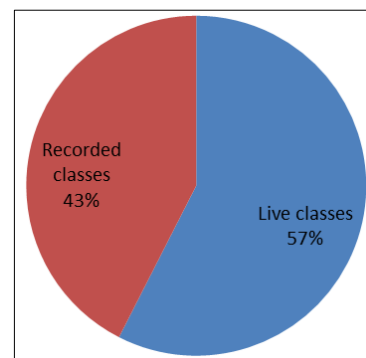


Fig 10: Preferred mode of classes

The majority of the respondents preferred Live classes to recorded classes.

Medium of communication for peer interaction

Table 11: Medium of communication for peer interaction

| Category | No. of responses | Percentage |
|--------------|------------------|------------|
| Online Class | 16 | 10 |
| Phone calls | 16 | 10 |
| Whatsapp | 123 | 76.88 |
| Others | 5 | 3.13 |
| Total | 160 | 100 |

Table 11 shows that 76.88% of the respondents are contacting their peers through Whatsapp, 10% each of the respondents are contacting their peers through phone calls and Google Meet. 3.13% are using other platforms.

The pictorial representation is as shown in Figure 11.

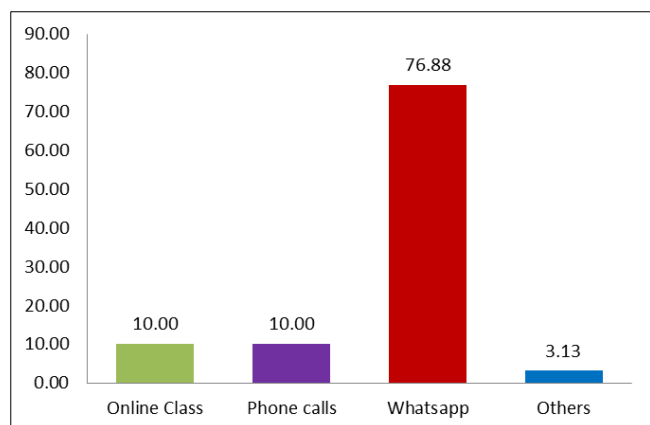


Fig 11: Medium of communication for peer interaction

The study shows that the majority of the respondents are contacting their peers through WhatsApp.

Findings

1. All undergraduate students have a device for attending online classes.
2. The majority of undergraduate students use smartphones for attending online classes.
3. The majority of respondents have internet accessibility. But still some students do not have internet accessibility.
4. The majority of undergraduate students use cellular services for internet connectivity for attending online classes.
5. The majority of respondents have average quality of internet connection
6. Some of the students still lack technical knowledge regarding the usage of online applications such as Google meet, Zoom, Webex etc.
7. Most of the respondents are receiving the education resources from their institution through WhatsApp platform. This implies the need for providing the education resources through Learning Management Systems so that there will be standard and structured organisation and delivery of Learning resources
8. The majority of the respondents are clarifying their doubts through WhatsApp.
9. The majority of the students are evaluated through assessment platforms other than Moodle, Google forms and Google classrooms.
10. The majority of the respondents preferred live classes than recorded classes.
11. The majority of the respondents are contacting their peers through WhatsApp.

Suggestions

Some of the suggestions from the study regarding the online classes during Covid-19 pandemic are:

- Some of students still do not have internet accessibility and lack technical knowledge regarding the usage of online applications such as Google meet, Zoom, Webex etc. This points the need for assistance for accessibility

to internet and requirements of training and orientation needed for the undergraduate students for attending online classes.

- Most of the respondents are receiving the education resources from their institution through Whatsapp platform. This implies the need for providing the education resources through Learning Management Systems so that there will be standard and structured organisation and delivery of Learning resources.
- The teachers must be properly prepared and trained to use ICT and Learning Management systems.
- Students must be encouraged to clarify their doubts through online classes and through discussions forums.

Conclusions

The COVID-19 pandemic has severely affected the educational field of India. After closing of schools, colleges and universities, the educational institutions quickly announced that online classes will be conducted by the institutions. The paradigm shift from traditional face to face teaching method to online teaching has brought about many requirements in the skill enhancement of teachers and students. WhatsApp is widely used by the students for learning resources sharing, communication and for clarification of doubts. The study suggests to encourage the use of Learning Management System for the structured organisation and delivery of learning resources.

References

1. Adnan M, Anwar K. Online learning amid the COVID-19 pandemic: Students' perspectives. *Journal of Pedagogical Sociology and Psychology*. 2020;2(1):45-51. <https://doi.org/10.33902/jpsp.2020261309>
2. Bao W. COVID -19 and online teaching in higher education: A case study of Peking University. *Human Behavior and Emerging Technologies*. 2020;2(2):113-115. <https://doi.org/10.1002/hbe2.191>
3. Baran E, Alzoubi D. Human-centered design as a frame for transition to remote teaching during the COVID-19 pandemic. *Technology and Teacher Education*. 2020;28(2):365-372.
4. Chang CL, Fang M. E-Learning and Online Instructions of Higher Education during the 2019 Novel Coronavirus Diseases (COVID-19) Epidemic. *Journal of Physics: Conference Series*. 2020;1574(1). <https://doi.org/10.1088/1742-6596/1574/1/012166>
5. Demuyakor J. Coronavirus (COVID-19) and online learning in higher institutions of education: A survey of the perceptions of Ghanaian international students in China. *Online Journal of Communication and Media Technologies*. 2020, 10(3). <https://doi.org/10.29333/ojcm/8286>
6. Dhawan S. Online learning: A panacea in the time of COVID-19 crisis. *Journal of Educational Technology Systems*. 2020;49(1):5-22. <https://doi.org/10.1177/0047239520934018>.
7. Zuo L, Dillman D, Miller Juve A. Learning At-Home during COVID-19: A Multi-institutional Virtual Learning Collaboration. *Medical Education*, 2020, 1-2. <https://doi.org/10.1111/medu.14194>