USE OF ONLINE RESOURCES FOR TEACHING AND LEARNING BY SECONDARY SCHOOL TEACHERS

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Introduction: The world has become a global village because of innovation in information communication technology. Local teachers are becoming global teachers. Geographical limits are barred because of global communication. Through online teaching and other online platforms teachers can serve to maximum number of students at a time. Not only the online teaching but through quality resources teachers can bring education to all. At present teachers are using online resources for the teaching but there is a much more to achieve teachers should prepare their own educational resources and make available to others is also equally important. OER can be effectively used in the field of education. OERs can be reuse, revise, retain, remix, redistribute and it is free. Quality OERs should be developed by the teachers. Collaborative education will bring qualitative change in the field of education. Self-motivated teachers are very active in preparing of educational resources. It is also important that while using online resources all the precautions should be taken like authenticity, validity, relevance, creative commons and quality of resource.

Importance of the Study:

Internet has brought revolutionary change in all the fields; education is not exception for this. Sharing of knowledge and information is easily possible with the use of internet. In the recent times because of restrictions due to covid-19 teachers are using online resources. Some teachers are preparing their own educational resources and uploading on internet. For online teaching also teachers are using ZOOM, Google Meet, Microsoft Teams, Webex and many

other tools. For better exchange of education teachers are using Google classroom, blogs, Moodle etc.

Teachers are trying to adapt new online environment. The present study is a small effort to understand that how the secondary teachers are making use of online resources, what their difficulties are. On the basis of data, we can understand the status of online education, and we can help secondary teachers to make it more effective and better, so education can reach up to grass root level.

Objectives of the study:

For the present study the researcher had formulated following objectives.

1) to study the use of online educational resources by secondary school teachers.

2) to study the secondary school teacher's problems in use of online educational resources.
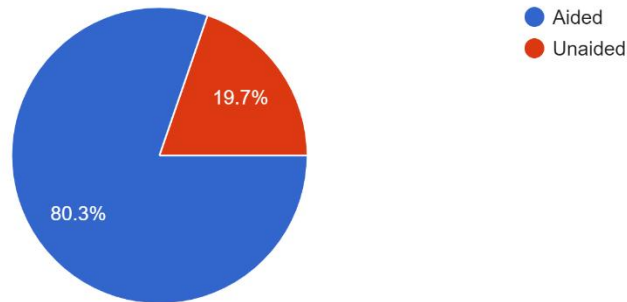
Methodology and Sample of the study:

For the present study the researcher has selected a Survey method. The data is collected through google forms. The google form was circulated through WhatsApp, Gmail and other social networking sites. For the present study for the present study teachers working in aided and unaided secondary schools in the state of Maharashtra are considered. The researcher has received responses from 148 teachers.

Tool of the data Collection: The researcher has prepared a questionnaire and used google form for the circulation of the form. There were 25 items constructed which are related to study use of online educational resources by secondary school teachers. In the 25 items in the questionnaire there was a freedom given to the teachers that if they do not want to attempt particular question, they were free to do so.
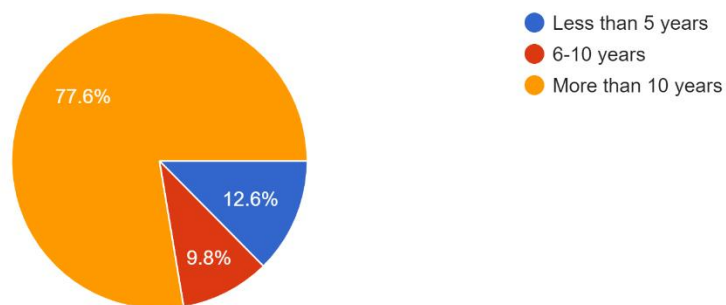
Statistical Techniques used: For the analysis of the data simple statistical tool i.e. , percentage is used. The data analysis is presented in the form of graphs.
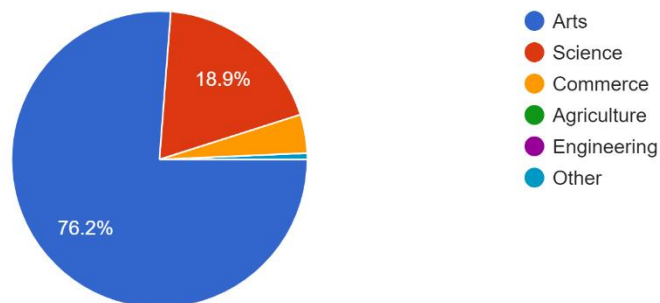
Graphical Analysis:

1) Select the type of school you are working in
142 responses

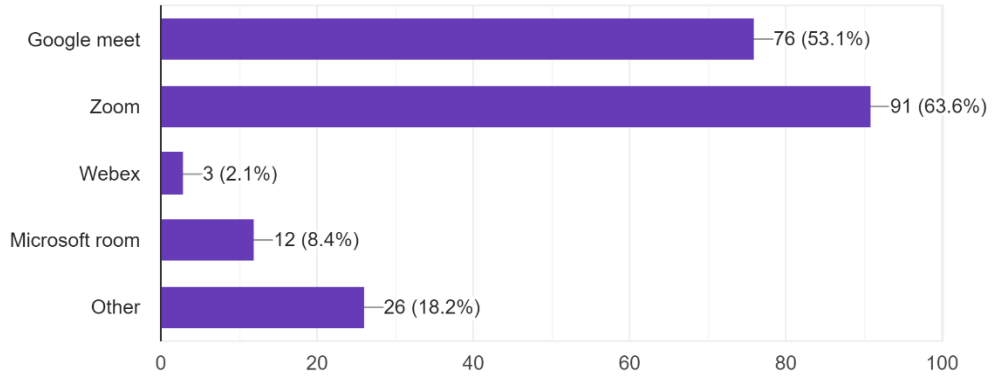- ● Aided
- ● Unaided

2) Your teaching experience in years
143 responses

- ● Less than 5 years
- ● 6-10 years
- ● More than 10 years

3) Graduation in
143 responses

- ● Arts
- ● Science
- ● Commerce
- ● Agriculture
- ● Engineering
- ● Other

4) What all platforms are you using for online teaching?

143 responses

Platform	Count
Google meet	76 (53.1%)
Zoom	91 (63.6%)
Webex	3 (2.1%)
Microsoft room	12 (8.4%)
Other	26 (18.2%)

5) Which digital classrooms have you heard/used?

143 responses

Classroom	Count
Google classroom	107 (74.8%)
Edmodo	5 (3.5%)
21 classes	0 (0%)
Other	30 (21%)
None	16 (11.2%)

Google classroom
Count: **107**
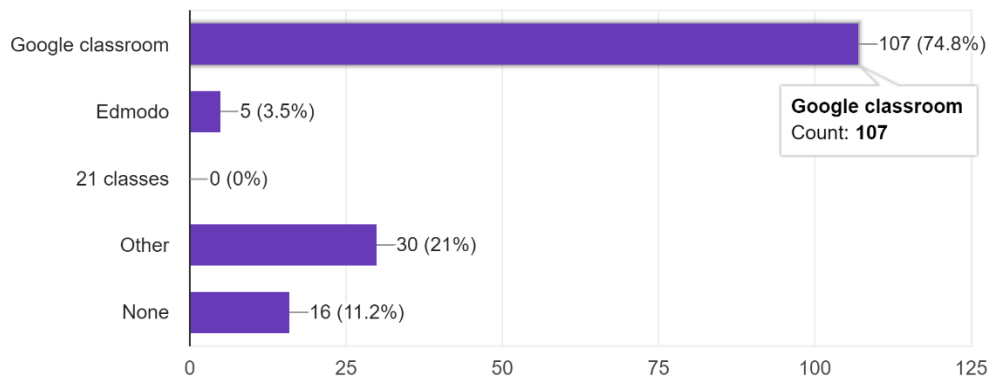
6) What are the common difficulties faced during online teaching?

143 responses

- 7%
- 9.8%
- 9.1%
- 72%

- ● Network problem
- ● Time adjustment
- ● Not familiar with online education apps
- ● Electricity Problem
- ● No difficulty faced
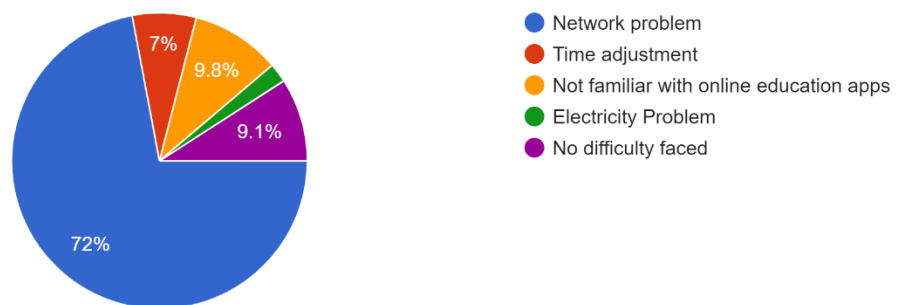
7) Do you prepare your own educational resources and upload them on Internet?

142 responses

- Always
- Never
- Rarely
- Sometimes

43%

9.2%

18.3%

29.6%
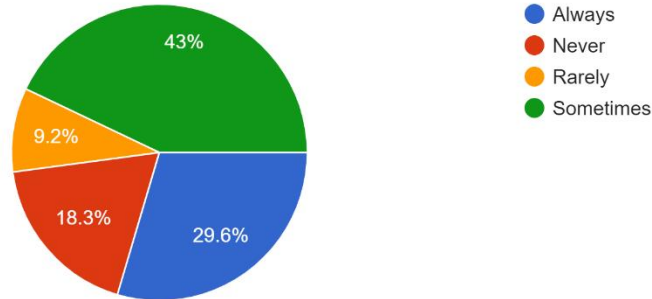
8) Which of the following resources are you using for effective Teaching-Learning process ?

140 responses

Resource	Value
Youtube	122 (87.1%)
Teacher tube	8 (5.7%)
Google form	82 (58.6%)
Google scholar	4 (2.9%)
Shodhganga	3 (2.1%)
Khan acadamy	9 (6.4%)
Google Alert	0 (0%)
Google map	17 (12.1%)
Google Docs	31 (22.1%)
Wikipedia	41 (29.3%)
Online journals	7 (5%)
Coursera	2 (1.4%)
	1 (0.7%)
Diksha app , mcgmedu	1 (0.7%)
PPT	1 (0.7%)
P.p.t,pdf,images	1 (0.7%)
	1 (0.7%)
Work sheet	1 (0.7%)
Diksha	1 (0.7%)
Ok	1 (0.7%)
Teachmint	1 (0.7%)
Powerpoint	1 (0.7%)
WhatsApp	1 (0.7%)
edu.vopa,Diksha App,	1 (0.7%)
Diksha App Telegram App	1 (0.7%)
SSC Board website	1 (0.7%)
Whatsapp	1 (0.7%)
Kahoot, quizzes, whiteboard	1 (0.7%)

9) Which examination pattern do you like for assessment of your learning ?
142 responses

- Traditional paper pencil
- Online
- Both

53.5%
22.5%
23.9%
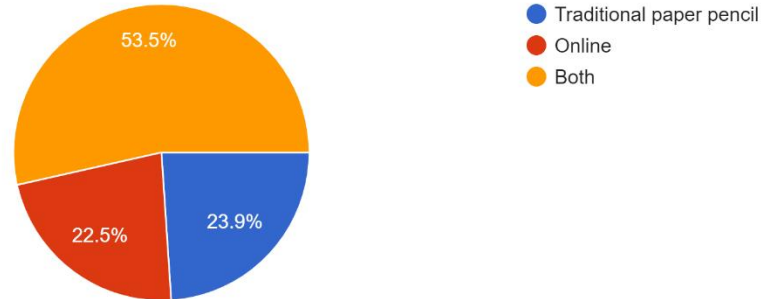
10) How much time do you utilize for online teaching ?
140 responses

- 2 hrs
- 3 Hrs
- 4 hrs
- more than 4 Hrs
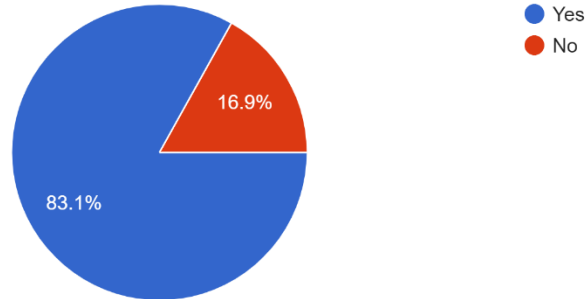
15%
27.9%
11.4%
45.7%
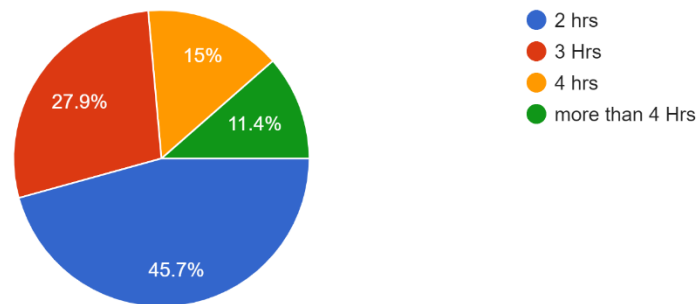
11) Do you use online platform for communicating with parents ?
142 responses

- Yes
- No

93%
7%
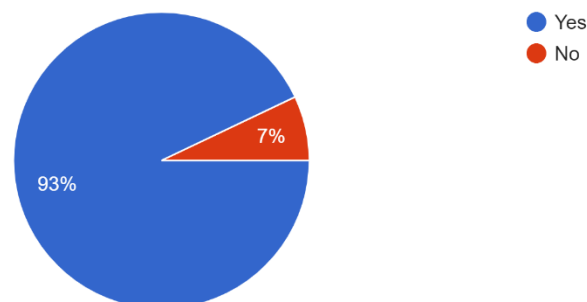
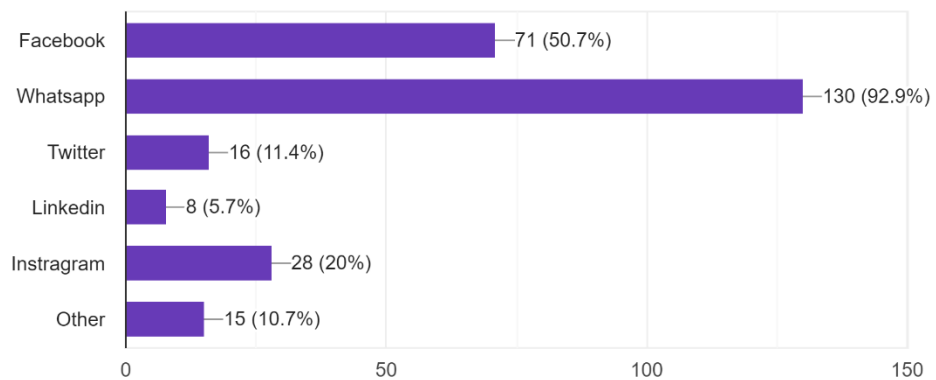12) Have you ever used resources of E-Pathshala, Diksha, or NPTL?
142 responses

● Yes
● No

16.9%

83.1%

13) Do you use Social Networking site ?
142 responses

● Yes
● No

9.9%

90.1%
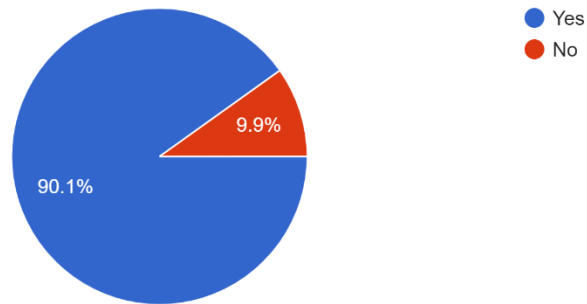
14) If yes which Social media sites do use use?
140 responses

Facebook	71 (50.7%)
Whatsapp	130 (92.9%)
Twitter	16 (11.4%)
Linkedin	8 (5.7%)
Instragram	28 (20%)
Other	15 (10.7%)

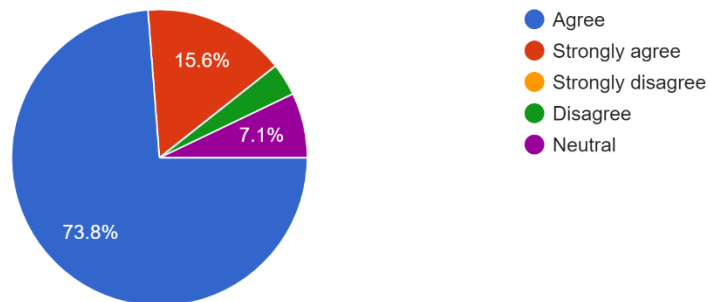0   50   100   150

15) Do you know how to use safety features available on social media platform ?

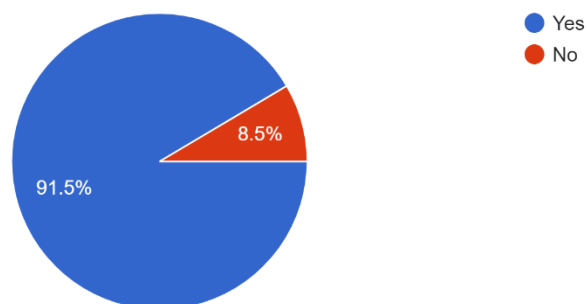141 responses

Yes

No

25.5%

74.5%
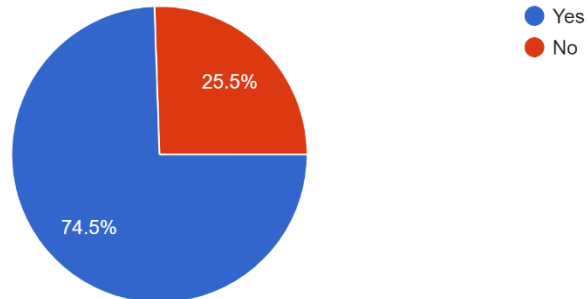
16) School management, principal, teachers, parents students & alumni can make use of social media platform for development & progress of school

141 responses

Agree

Strongly agree

Strongly disagree

Disagree

Neutral

15.6%

7.1%

73.8%

17) Do you conduct online quiz/examination for your students ?

141 responses

Yes

No

8.5%

91.5%

18) What all educational resources have you used for evaluation of students?
142 responses

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Quizlet     ─18 (12.7%)
Quizzes     ─63 (44.4%)
Kahoot      ─9 (6.3%)
Worksheets  ─104 (73.2%)
Rubrics     ─8 (5.6%)
H5p         ─3 (2.1%)
Other       ─38 (26.8%)
None        ─9 (6.3%)
            0    25    50    75    100    125
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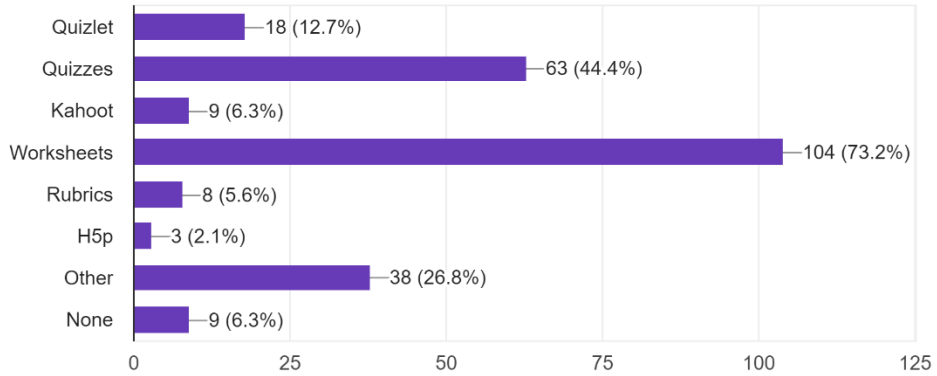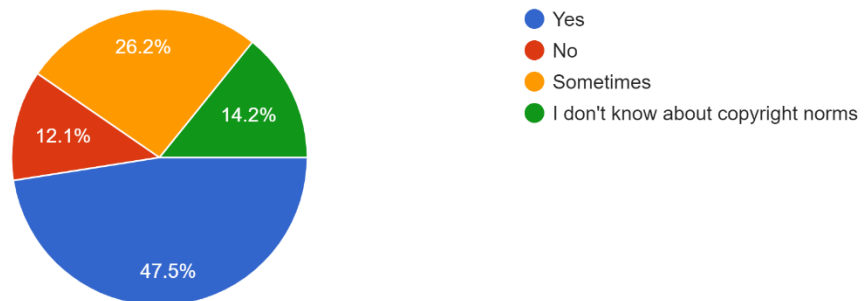
19) Do you use different search engines for collection of information , images , books, reference reading material?
141 responses

- Yes
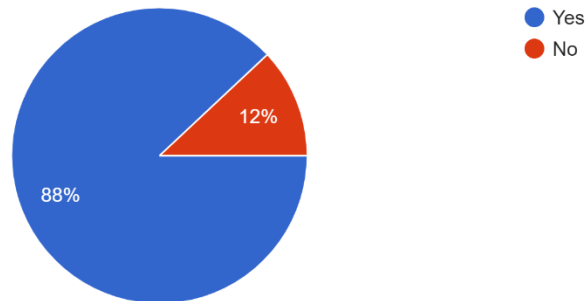- No

90.8%
9.2%
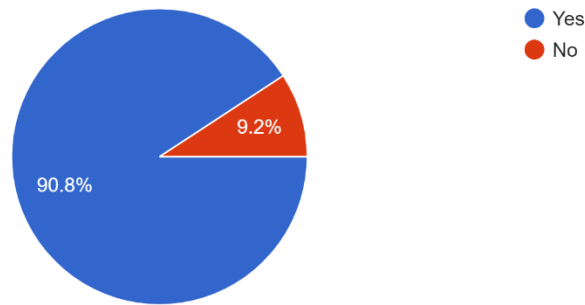
20) Do you follow copyright norms while downloading any educational material from Internet?
141 responses

- Yes
- No
- Sometimes
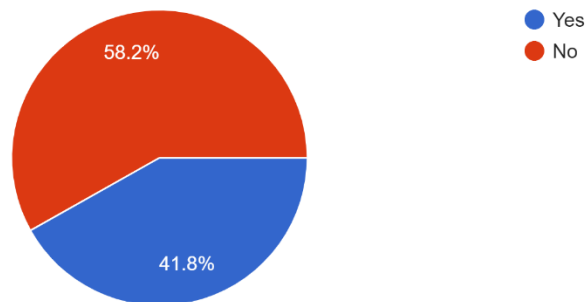- I don't know about copyright norms

26.2%
14.2%
12.1%
47.5%

21) Do you refer your students and teacher friends about many free educational resources available on Internet?

142 responses

Yes
No

12%

88%

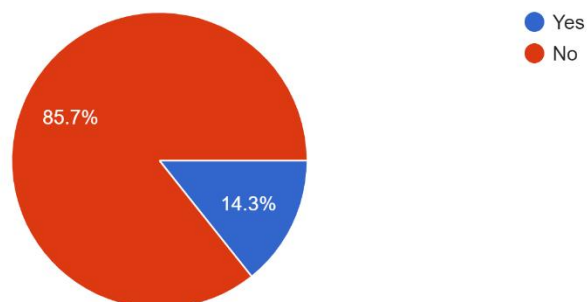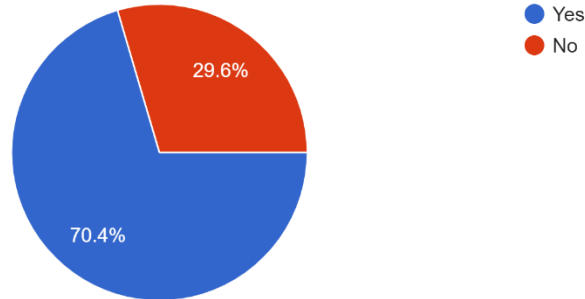22) Have you completed/attended any MOOC (Massive Online Open Course) ?

141 responses

Yes
No

58.2%

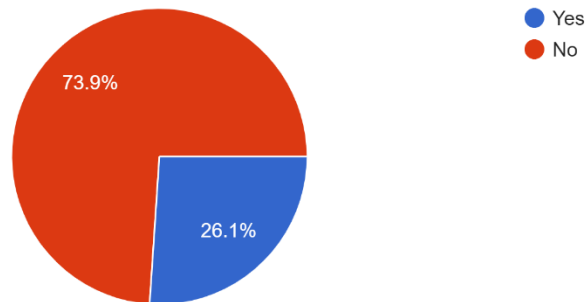41.8%

23) Do you write Educational Blogs for your students ?

140 responses

Yes
No

85.7%

14.3%

24) Do you check authenticity, reliability and validity of content provided on website?
142 responses

● Yes
● No

29.6%

70.4%

25) Do you know the concept of OER?
142 responses

● Yes
● No

73.9%

26.1%

Analysis of the Data: On the basis of responses received following facts are revealed.

1) Among the 148 respondents there were 80.3 percent teachers were from aided schools and 19.7% teachers were from unaided schools.

2) Teaching experience of the teachers is given in following table. Majority of the teachers were from aided schools.

More than 10 years	6 to 10 years	Less than 5 years
77.6%	9.8%	12.6%

3) Majority of the teachers having the educational background of Arts faculty (76.2%), and next to that were from Science background (18.9%).

4) Secondary school teachers are using various platforms for the online teaching purpose.

Zoom	Google Meet	WebEx	Microsoft room	Other
63.6%	53.1%	2.1%	8.4%	18.2%

5) Secondary school teachers are familiar with following digital classroom platforms.

Google Classroom	Edmodo	21 Classes	Other	None
74.8%	3.5%	0%	21%	11.2%

6) Network problem is the major problem during conduction online teaching is reported by 72% teachers. Adjustment of time is a problem for 7% teachers. Some teachers are having electricity problem also.9.8% teachers expressed that they are not very familiar with the interface of online lessening platforms. 9.1% teachers are conduction online teaching without any problems.

7) 29.6% teachers regularly prepare their own educational resources and share with their students. 43% teachers sometimes prepare their own educational resources whereas 9.2% teachers rarely prepare their own resources. 18.3% teachers never tried to prepare digital resources for their students.

8) For the effective teaching-learning process secondary teachers use various resources from different online portals like YouTube (87.1%), Teacher Tube (5.7%), goggle form (58.6%), Google scholar (2.9%), khan academy (6.4%), Google map (12.1%), Wikipedia (29.1%), Google docs (22.1%), online journals (5%).

9) As far as assessment system is concerned 53.5% teachers expressed that online and traditional both the assessment systems are equally effective. 22.5% teachers are in favour of online assessment whereas 23.9% teachers are in favour of traditional assessment system.

10) Time in a day given to online teaching by secondary teachers is given in following table.

More than 4 Hours	4 hours	3 hours	2 hours
11.4%	15%	27.9%	45.7%

11) 93 % teachers use online platform for communication with parents.

12) 83.1% teachers have used e-pathshala, NPTL, DIKSHA and other similar educational platforms.

13) 90.1% teachers use social networking platforms.

14) Secondary teachers use following social networking modes.

Facebook	WhatsApp	Twitter	LinkedIn	Instagram
50.7%	92.9%	11.4%	5.7%	20%

15) 74.4% teachers use all the safety measures while using social networking phlatform.25.5% teachers are unaware about the use of safety measures of using social media.

16) 73.8% secondary teachers are agreeing that school management, principal, teachers, parents and students/alumni can make use of social media for development and progress of school.

17) 91.5% teachers conduct online quiz and examination for assessment purpose. 8.5% teachers do not use online assessment system.

18) For the purpose of assessment following online platforms are used by secondary teachers.

Quizlet	Quizzes	Kahoot	worksheets	Rubrics	H5p	None
12.7%	44.4%	6.3%	73.2%	5.6%	2.1%	6.3%

19) 90.8% teachers use various search engines to search books, educational information, and reference material. 9.2% teachers are not using search engines.

20) 47.5% teachers follow the copyright norms while downloading educational material from the internet.

21) 88% teachers refer various free educational resources available in the internet to their students and friends.

22) As far as Massive Online Open Courses (MOOC) are concern 41.8% teachers have completed at least one MOOC. 58.2% teachers have not completed any MOOC.

23) 85.7% teachers are having their own blog for educational purpose. 14.3% teachers do not have their blog.

24) 70.4% teachers check reliability, authenticity and validity of educational content available on the internet. 29.6% teachers do not check authenticity and validity of educational content available on the internet.

25) 73.9% teachers are not familiar with the concept of OER (Open Educational Resources) whereas 26.1% know what OER is.

Recommendations on the basis of above findings:

On the basis of above findings following recommendations can be given.

1) Training of how to use online teaching platforms should be given to teachers at priority basis.

2) Government of India/ Maharashtra should introduce their own, secure platform for online teaching.

3) Teacher should be motivated to prepare their own educational resources and upload it for the use of students so it can reach to maximum number of students.

4) As many teachers do not know about e-path Shala so Teacher training colleges, government agencies and school principal should introduce it to school teachers through orientation programs.

5) Training of safety measures while using social networking should be provided to secondary teachers.

6) Training regarding online assessment system should be provided to secondary teachers.

7) Most of the teachers do not know about the copyright and legal norms of using online educational material, this is very serious thing. Orientation should be given regarding copyright norms.

8) MOOC and OER are emerging concepts in the field of education. Sharing of resources is easily possible also new learning for update knowledge is possible. Concept of MOOC and OER should be oriented to secondary teachers. If maximum number of teachers prepare OER and share it will be a great benefit to the learners.

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