

Perception of Secondary School Teachers for Online Learning During COVID-19

Anjali Kumari¹, Vikramjit Singh^{2*}

¹Scholar, Patna Women's College, Patna, Bihar, India

²Assistant Professor, St. Xavier's College of Education (Autonomous), Patna, Bihar, India

ABSTRACT

In this present lockdown situation due to COVID-19 pandemic, the entire education system shifts from traditional to non-traditional teaching-learning. Our teachers have made education possible with the help of technology. The usage of technology for online learning depends upon teachers' perceptions of it. The research was conducted to determine the perception of secondary school teachers of online teaching-learning. The major objectives of this study are to find out the perception of teachers towards online learning based on gender, type of school, subject taught, teaching experience, and educational qualification. The descriptive survey is used in this research. The quota sampling technique selects 140 secondary school teachers from Patna. A self-constructed and validated perception scale was used to collect data. Data analysis was carried out with chi-square for perception scale in SPSS software.

From the analysis, it was found that there were no significant differences in the perception of secondary school teachers based on the various background variables of secondary school teachers. It means that the secondary school teachers of Patna have a positive perception of online learning during COVID-19. They used online platforms for the teaching-learning process. This research paper contributes to studying teachers' perception of technology adoption in education.

Keywords: Online learning, COVID-19 pandemic, Technology, Perception, Quota sampling.

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INTRODUCTION

As we know that "necessity is the mother of invention". In this present pandemic situation, teachers make education possible with the help of technology. Nowadays, technology has occupied the whole world, in every corner of life. But its effective use in the field of education can yield greater benefit. In India, there is very minimal use of technology in education, and recently we are bound up with the traditional system of education. This pandemic gave us a chance to enhance our knowledge and skills in technology. In the context of Patna (Bihar), very few teachers have good ideas about using technology, especially the old-age teachers who don't feel comfortable using technology.

In this present scenario somehow, they tried to understand and learn and use it. The whole education system got transferred into mobile phones and laptops. The method of teaching got changed. An application like Zoom and Google-meet has taken up the place of our regular classrooms. Chalkboard has been replaced by Microsoft word, Excel and PowerPoint. The relationship between students and teachers have also got changed. From the researchers' point of view, if the teachers are aware of the use of technology, they only develop confidence within themselves. If the teachers understand the value of technology in this pandemic, then only he/she will be able to motivate their students. The students thus convince their parents about the importance of technology in this present time as most parents of rural areas have a mentality that mobile phones and laptops are only used for entertainment. Many personal characteristics, such as gender, educational experience, etc., influence technology adaptation. Among the factors that influence the successful integration of technology into teaching is teachers' perception and beliefs towards technology. In online education, the teacher's perception is very important.

Corresponding Author: Vikramjit Singh, Assistant Professor, St. Xavier's College of Education (Autonomous), Patna, Bihar, India, e-mail: singhvikramjit@hotmail.com

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Effective utilization of anything by a person depends on his/her perception of it. In this way, use of ICT (Information and Communication Technology) for teaching-learning by a teacher depends on his/her perception. The familiarity with various components of ICT may provide a high-level perception to the teachers to make use of it. Perception is a psychological process. It is a sensory experience of things. We gain information from our surroundings through the perceptual process, which are very important for our survival. The awareness of teachers towards technology affects their perception. Various factors affect the perception of teacher's towards online learning like the teacher's readiness for using technology in teaching-learning, and somehow school management is also responsible for this. The other thing is the training of teachers in ICT. In the lockdown period, NCERT (National Council of Educational Research and Training), NCTE (National Council for Teacher Education), and many training colleges organize several online training programs for the continuous professional development of teachers. The purposes of these online programs are to train the teachers for online classes and develop their perception of online teaching-learning.

Significance of the Study

In this present situation of COVID-19 when all the schools are shut down, we can continue our study with the help of online education. Online education has become the need of this present time. Because of this pandemic, technology is included in our education system so that it never be separated from the system. Many things will be changed in the upcoming days after the pandemic, like the teaching methods where blended learning, flipped learning, and virtual class will become part of our daily classroom. All these depend upon the real stakeholders of teaching and learning, i.e. the teacher and the students. The role of the teacher here is of utmost importance as when they develop the feeling of the importance of technology for the benefit of the child, and then only any learning can become successful. Therefore, the teacher's must-have the knowledge and skill of using technology in online learning. The study taken up by the researcher is an attempt to investigate the perception of secondary school teachers towards online learning. The literature review done by the researcher secured that no such type of study has been taken up in the region of Bihar and thus felt the need to take up this study to teaching-learning scenarios of the schools in Patna. The outcomes of this study shall benefit the teachers and other stakeholders towards the inclusion of technology in the school of Bihar. In the background of all these, the researcher has taken up the present problem, which is as follows.

Operational Definition

- **Perception:** In this study, perception is the process of acquiring information with the help of sense organs and organizing sensation to produce meaningful experiences related to online learning.
- **Online Learning:** Online learning in this study is related to all the technological initiatives taken up for the continuous learning of students like online classes, online evaluation, etc.

Objectives

- To find a significant difference between male and female secondary school teachers in their perception of online learning.
- To find a significant difference between government and private secondary school teachers in their perception of online learning.
- To find if there is a significant difference between secondary school teachers with different level of teaching experience in their perception towards online learning.
- To find a significant difference among the different subjects of secondary school teachers in their perception of online learning.
- To find a significant difference between secondary school teachers with different educational qualifications in their perception of online learning.
- **Tool Used:** The investigator has used a self-constructed and validated perception scale.
- **Method Used:** The investigator has used survey method for the present study.
- **Population of the Study:** The populations of the study were private and government secondary schools teachers of Patna.
- **Sample of the Study:** Sample consists of 140 secondary school teachers using quota sampling.

Statistical Techniques

Chi-Square technique was used.

Delimitations: i. The study is restricted to 140 secondary school teachers of Patna only; ii. The study is restricted to one variable.

Hypotheses

- There is no significant difference between male and female secondary school teachers in their perception towards online learning.
- There is no significant difference between private and government secondary school teachers in their perception towards online learning.
- There is no significant difference among secondary school teachers of different subjects in their perception of online learning.
- There is no significant difference among secondary school teachers into a different level of teaching experience in their perception towards online learning.
- There is no significant difference between secondary school teachers with different educational qualifications in their online learning perception.

Hypotheses Testing

H_{0.1} There is no significant difference between the mean scores of male and female secondary school teachers' perception towards online learning.

As observed from the Table 1 we can see the calculated chi-square value. Further, while observing the *p-value* we can see that the calculated *p-values* are found to be not significant and hence we can say that there is no difference between the male and female secondary school teachers in their perception towards online teaching-learning, and the framed hypothesis is accepted.

H_{0.2} There is no significant difference between private and government secondary school teachers' mean scores in their perception of online learning.

As observed from the Table 2, we can see the calculated chi-square value. Further, while observing the *p-value* we can see that the calculated *p-values* are not significant, and hence we can say that there is no difference between the private and government secondary school teachers in their perception of online teaching-learning framed hypothesis is accepted.

H_{0.3} There is no significant difference between the mean scores of secondary school teachers into a different level of teaching experience in their perception towards online learning.

As observed from the Table 3 we can see the calculated chi-square value. Further, while observing the *p-value* we can see that the calculated *p-values* are found to be not significant and hence we can say that there is no difference between the different levels of teaching experience of secondary school teachers in their perception towards online teaching learning and the framed hypothesis is accepted.

H_{0.4} There is no significant difference between the mean scores of secondary school teachers of different subjects in their perception towards online learning.

As observed from the Table 4 we can see the calculated chi-square value. Further, while observing the *p-value* we can see that the calculated *p-values* are found to be not significant and hence the framed hypothesis is accepted and we can say that there is no difference between the secondary school teachers of different subjects in their perception towards online teaching learning.

H_{0.5} There is no significant difference between the mean scores of secondary school teachers with different educational qualification in their perception towards online learning.



Table 1: Chi-square and p-value of male and female secondary school teachers' perception towards online learning

S. No.	Items for assessing perception online teaching learning	Chi-square Calculated	p-Value	Remarks
1	Online learning for students cannot be assessed.	0.041	0.84	NS
2	Lesson planning is not necessary for online learning.	0.076	0.78	NS
3	Online learning is a wastage of time for both students and teachers.	0.280	0.59	NS
4	Online learning requires a collaborative relationship between the students, teachers, parents and school administration.	0.317	0.57	NS
5	Taking attendance in online learning is difficult	0.562	0.45	NS
6	Online learning promotes critical thinking among students	2.403	0.12	NS
7	Online learning helps in promoting creativity among students.	2.458	0.11	NS
8	Online learning is a futuristic form of learning for students.	0.488	0.48	NS
9	Online learning cannot help in developing psychomotor domain of students.	0.193	0.66	NS
10	Group activities are possible in online learning.	2.077	0.14	NS
11	Online learning can be affected by non-academic factors like the economic condition of the students.	0.298	0.58	NS
12	Online learning helps in developing the cognitive domain of students.	1.246	0.264	NS
13	Online learning helps in developing effective domains of students.	3.089	0.079	NS
14	Only lecture method is possible in online teaching-learning.	6.315	0.012	NS*
15	Online learning is not suitable for all school subjects.	1.003	0.317	NS
16	There is no scope for interaction in online learning.	0.001	0.97	NS
17	Drawing the attention of students is easy in online learning classes.	0.165	0.68	NS
18	Online learning improves the learning achievement of students.	1.086	0.297	NS
19	Online learning cannot result in long-term learning retention.	5.386	0.02	NS*
20	Online learning is not suitable for secondary school students.	1.936	0.16	NS
21	Teacher cannot clear doubts posed by the students during online learning.	5.208	0.02	NS*

Using Bonferroni corrections $\alpha = 0.002$

Table 2: Chi-square and p-value of private and government secondary school teachers' perception towards online learning

S. No.	Items for assessing perception online teaching-learning	Chi-square calculated	p-Value	Remarks
1	Online learning for students cannot be assessed.	1.470	0.225	NS
2	Lesson planning is not necessary for online learning.	1.123	0.289	NS
3	Online learning is a wastage of time for both students and teachers.	0.234	0.629	NS
4	Online learning requires a collaborative relationship between the students, teachers, parents, and school administration.	0.408	0.523	NS
5	Taking attendance in online learning is difficult	0.004	0.950	NS
6	Online learning promotes critical thinking among students	0.186	0.666	NS
7	Online learning helps in promoting creativity among students.	0.172	0.678	NS
8	Online learning is a futuristic form of learning for students.	0.471	0.493	NS
9	Online learning cannot help in developing psychomotor domain of students.	0.022	0.881	NS
10	Group activities are possible in online learning.	0.224	0.636	NS
11	Online learning can be affected by non-academic factors like the economic condition of the students.	0.497	0.481	NS
12	Online learning helps in developing the cognitive domain of students.	0.354	0.552	NS
13	Online learning helps in developing the affective domain of students.	4.140	0.042	NS*
14	Only lecture method is possible in online teaching-learning.	3.870	0.049	NS*
15	Online learning is not suitable for all school subjects.	0.172	0.678	NS

S. No.	Items for assessing perception online teaching-learning	Chi-square calculated	p-Value	Remarks
16	There is no scope for interaction in online learning.	1.851	0.174	NS
17	Draw the attention of students is easy in online learning classes.	0.171	0.680	NS
18	Online learning improves the learning achievement of students.	0.422	0.516	NS
19	Online learning cannot result in long-term learning retention.	0.416	0.519	NS
20	Online learning is not suitable for secondary school students.	1.013	0.314	NS
21	Teacher cannot clear doubts posed by the students during online learning.	6.264	0.012	NS*

Using Bonferroni corrections $\alpha = 0.002$

Table 3: Chi-square and p-value for different level of teaching experience of secondary school teachers' perception towards online learning

Sl. No.	Items for assessing perception online teaching learning	Chi-Square Calculated	P-Value	Remarks
1	Online learning for students cannot be assessed.	1.381	0.501	NS
2	Lesson planning is not necessary for online learning.	0.387	0.824	NS
3	Online learning is wastage of time for both students and teachers.	1.742	0.419	NS
4	Online learning requires collaborative relationship between the students, teachers, parents and school administration.	7.943	0.019	NS*
5	Taking attendance in online learning is difficult	1.001	0.606	NS
6	Online learning promotes critical thinking among students	4.537	0.103	NS
7	Online learning helps in promoting creativity among students.	0.506	0.776	NS
8	Online learning is a futuristic form of learning for the students.	4.347	0.114	NS
9	Online learning cannot helps in developing psychomotor domain of students.	0.423	0.809	NS
10	Group activities are possible in online learning.	2.367	0.306	NS
11	Online learning can be affected by non-academic factors like economic condition of the students.	2.873	0.238	NS
12	Online learning helps in developing cognitive domain of students.	0.559	0.756	NS
13	Online learning helps in developing affective domain of students.	2.440	0.295	NS
14	Only lecture method is possible in online teaching-learning.	2.080	0.353	NS
15	Online learning is not suitable for all school subjects.	2.493	0.288	NS
16	There is no scope for interaction in online learning.	3.228	0.199	NS
17	Draw attention of students is easy in online learning classes.	0.227	0.893	NS
18	Online leaning improves learning achievement of students.	0.201	0.904	NS
19	Online learning cannot result in long term learning retention.	3.979	0.137	NS
20	Online learning is not suitable for secondary school students.	0.134	0.935	NS
21	Teacher cannot clear doubts posed by the students during online learning.	0.935	0.627	NS

Using Bonferroni corrections $\alpha = 0.002$

Table 4: Chi-square and p-value of secondary school teachers of different subjects in their perception towards online learning.

Sl. No.	Items for assessing perception online teaching learning	Chi-Square Calculated	P-Value	Remarks
1	Online learning for students cannot be assessed.	4.079	0.395	NS
2	Lesson planning is not necessary for online learning.	2.219	0.696	NS
3	Online learning is wastage of time for both students and teachers.	2.746	0.601	NS
4	Online learning requires collaborative relationship between the students, teachers, parents and school administration.	0.693	0.952	NS
5	Taking attendance in online learning is difficult	0.628	0.960	NS
6	Online learning promotes critical thinking among students	2.743	0.602	NS



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Sl. No.	Items for assessing perception online teaching learning	Chi-Square Calculated	P-Value	Remarks
7	Online learning helps in promoting creativity among students.	0.456	0.978	NS
8	Online learning is a futuristic form of learning for the students.	4.192	0.381	NS
9	Online learning cannot helps in developing psychomotor domain of students.	7.826	0.098	NS
10	Group activities are possible in online learning.	3.456	0.485	NS
11	Online learning can be affected by non-academic factors like economic condition of the students.	3.777	0.437	NS
12	Online learning helps in developing cognitive domain of students.	3.675	0.452	NS
13	Online learning helps in developing affective domain of students.	7.506	0.111	NS
14	Only lecture method is possible in online teaching-learning.	3.204	0.524	NS
15	Online learning is not suitable for all school subjects.	0.641	0.958	NS
16	There is no scope for interaction in online learning.	1.133	0.889	NS
17	Draw attention of students is easy in online learning classes.	4.898	0.298	NS
18	Online leaning improves learning achievement of students.	4.198	0.381	NS
19	Online learning cannot result in long term learning retention.	3.543	0.471	NS
20	Online learning is not suitable for secondary school students.	4.116	0.391	NS
21	Teacher cannot clear doubts posed by the students during online learning.	1.800	0.772	NS

Table 5: Chi-square and p-value of secondary school teachers with different educational qualification in their perception towards online learning

S. No.	Items for assessing perception online teaching learning	Chi-Square Calculated	p-value	Remarks
1	Online learning for students cannot be assessed.	3.208	0.524	NS
2	Lesson planning is not necessary for online learning.	3.052	0.549	NS
3	Online learning is wastage of time for both students and teachers.	5.343	0.254	NS
4	Online learning requires collaborative relationship between the students, teachers, parents and school administration.	1.851	0.763	NS
5	Taking attendance in online learning is difficult	1.757	0.780	NS
6	Online learning promotes critical thinking among students	1.325	0.857	NS
7	Online learning helps in promoting creativity among students.	6.092	0.192	NS
8	Online learning is a futuristic form of learning for the students.	10.004	0.040	NS*
9	Online learning cannot helps in developing psychomotor domain of students.	10.024	0.040	NS*
10	Group activities are possible in online learning.	4.020	0.403	NS
11	Online learning can be affected by non-academic factors like economic condition of the students.	5.365	0.252	NS
12	Online learning helps in developing cognitive domain of students.	2.616	0.624	NS
13	Online learning helps in developing affective domain of students.	1.199	0.878	NS
14	Only lecture method is possible in online teaching-learning.	4.911	0.297	NS
15	Online learning is not suitable for all school subjects.	1.906	0.753	NS
16	There is no scope for interaction in online learning.	5.000	0.287	NS
17	Draw attention of students is easy in online learning classes.	4.658	0.324	NS
18	Online leaning improves learning achievement of students.	2.412	0.660	NS
19	Online learning cannot result in long term learning retention.	10.534	0.032	NS*
20	Online learning is not suitable for secondary school students.	5.698	0.223	NS
21	Teacher cannot clear doubts posed by the students during online learning.	1.236	0.872	NS

Using Bonferroni corrections $\alpha = 0.002$

As observed from the Table 5 we can see the calculated chi-square value. Further, while observing the p-value we can see that the calculated p-values are found to be not significant and hence we can say that there is no difference between the secondary school teachers with different educational qualification in their perception towards online teaching learning and thus the framed hypothesis is accepted.

CONCLUSION

Online learning is a new way to learn about almost anything and everything. It has brought a positive impact on the lives of teachers as well as students. The increasing use of technology in the field of teaching-learning has improved the quality of education. However, the teachers perceived several difficulties and challenges in the online teaching-learning because of the suddenly shift to a non-traditional mode of delivery of instruction. Due to the urgent adoption of online mode left teachers unprepared mentally, financially, socially and technically because of unfamiliarity with techno pedagogical approaches. But the findings of the study proved that the secondary school teachers of Patna have a positive perception towards the online learning during COVID-19. They use online platform for the teaching-learning process, this may be due to the demand of pandemic situation.

The success of online learning depends upon the real stakeholders of teaching and learning i.e. teachers and students. If the teachers are not aware about the online learning then their level of perception about online learning becomes low.

So, our teachers must learn to embrace the educational

challenges brought by the COVID-19 pandemic and view online teaching and learning as an inviting challenge.

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