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A study on the Impact of Online Teaching and the Methodology of Teaching on Performance of Higher Secondary School Teachers

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A study on the Impact of Online Teaching and the Methodology of Teaching on Performance of Higher Secondary School Teachers 1. Mrs. Vineeta Marial, M.Ed. Scholar, Pragati College, Choubey Colony, Raipur (C.G.) 2. Dr. Swati Khare, Assistant Professor, Pragati College, Choubey Colony, Raipur (C.G.) ABSTRACT Online distance learning meets the needs of an ever-growing population of students who cannot or prefer not to participate in traditional classroom settings.

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ABSTRACT

Online distance learning meets the needs of an ever-growing population of students who cannot or prefer not to participate in traditional classroom settings. These learners include those unable to attend traditional classes, who cannot find a particular class at their chosen institution, who live in remote locations, who work full-time and can only study at or after work, and those who simply prefer to learn independently. The minimum requirement for students to participate in an online course is access to a computer, the Internet, and the motivation to succeed in a non-traditional classroom. Online courses provide an excellent method of course delivery unbound by time or location allowing for accessibility to instruction at anytime from anywhere. Learners find the online environment a convenient way to fit education into their busy lives. The ability to access a course from any computer with Internet access, 24 hours a day, seven days a week is a tremendous incentive for many of today's students. The present research was aimed to study the Impact of Online Teaching and the Methodology of Teaching on Performance of Higher Secondary School Teachers. For the purpose the study will be delimited up to Raipur District of Chhattisgarh State. A number of 100 teachers from 10 higher secondary schools constituted the sample size for the present research study among which 50 teachers were selected from 05 Government schools and remaining 50 teachers were selected from 05 private schools. Survey method of research was used in the present research study to collect the data. A self-made questionnaire was developed by the researcher with the help of subject experts on the selected

variables for the data collection. Results revealed that in relation to the methods engaged to learn digitally in case of gender i.e. male and female teacher was is significant, in relation to Digital Collaborations in case of gender i.e. male and female teachers was found significant, in relation to Digital approaches which motivates to learn in case of gender i.e. male and female teachers which was not significant, Results showed that in relation to experience with online learning from home digitally in case of gender i.e. male and female teachers which was significant., in relation to the type of recorded video lecture is more effective for learning in case of gender i.e. male and female teachers which is significant, in relation to the type of quiz which is more effective for testing the understanding in case of gender i.e. male and female teachers which is significant, in relation to the factors which enhances effectiveness of online teaching-learning in case of gender i.e. male and female teachers which is not significant, in relation to the off-campus online learning measures in case of gender i.e. male and female teachers which was not significant, in relation to the holding responsibilities at home in case of gender i.e. male and female teachers which was not significant and in relation to the devices used for online learning in case of gender i.e. male and female teachers which was significant.

KEYWORDS

Online Teaching, Teaching Performance, Higher Secondary School.

INTRODUCTION

Online education is a form of education where students use their home computers through the internet. For many non-traditional students, among them all those who want to continue working full time or raising families, online graduations and courses have become popular in the past decade. Often online graduation and course programmes, some of which are conducted using digital technologies, are provided via the online learning portal of the host university. Computer-based training, Web-based training, Internet based training, online training, e-learning (electronic learning), m-learning (mobile learning), computer-aided distance education - online education goes by many names and comes in a variety of styles, but at its core:

“Online education is electronically supported learning that relies on the Internet for teacher/student interaction and the distribution of class materials.”

From this simple definition comes an almost infinite number of ways to teach and learn outside of traditional classrooms and away from college campuses. With online education, students can turn anywhere with Internet access and electricity into a classroom. It can include audio, video, text, animations, virtual training environments and live chats with professors. It's a rich learning environment with much more edibility than a traditional classroom. When used to its full potential, online education has been shown to be more effective than pure face-to-face instruction. It can be engaging, fun and tailored to it almost anyone's schedule.

Methodology is a system of practices and procedures that a teacher uses to teach. It will be based on beliefs about the nature of language, and how it is learnt (known as 'Approach'). Factors in deciding how to teach include the age and experience of learners, lesson and course objectives, expectations and resources. The term teaching method refers to the general principles, pedagogy and management strategies used for classroom instruction. A teacher's choice of teaching method depends on what fits on him/her — his/her educational philosophy, classroom demographic, subject area(s) and school mission statement.

Review of the Related Literature

Edwige Simon (2012) has conducted a study on the “Impact of Online Teaching on Higher Education Faculty’s Professional Identity and the Role of Technology: The Coming of Age of the Virtual Teacher”. This research helped identify how online learning is changing both teachers and the teaching profession within higher education, why many faculties remain ambivalent about online teaching, and suggests ways to address these challenges. The changes brought upon teachers by online teaching are transformative rather than incremental.

Sirous Hadadnia’s (2012) study was conducted with the purpose of comparing the effect of teaching of the online teacher with that of the real teacher on the students’ learning in the university classroom. Based on the findings of this study, it appears that to overcome the lack of skilled university instructors, one could use online teachers. The quality of learning provided by the online teacher is the same as the one provided by the real teacher.

M. D. Roblyer, Marclyn Porter, Talbot Bielefeldt, and Martha B. Donaldson (2009), have conducted a research on “Teaching Online Made Me a Better Teacher”: Studying the Impact of Virtual Course Experiences on Teachers’ Face-to-Face Practice. Anecdotal accounts from teachers have long suggested the possibility that virtual teaching experiences have a positive impact on face-to-face teaching practices, a so-called “reverse impact” phenomenon. The authors discuss three types of impact reflected in teacher comments and discuss tentative implications for teacher preparation programs and for bolstering the rationale for using technology in education. (Keywords: distance education, online learning, virtual schools)

Statement of Problem

“A study on the Impact of Online Teaching and the Methodology of Teaching on Performance of Higher Secondary School Teachers”

Objectives of the Study

1. To study the online teaching.
2. To study the methodology of teaching.
3. To study the impact of online teaching and methodology of teaching on higher secondary school teachers.

Hypothesis of the Study

1. There will be significant impact of online teaching on the performance of the male teachers of Government higher secondary schools.
2. There will be significant impact of online teaching on the performance of the female teachers of Government higher secondary schools.
3. There will be significant impact of online teaching on the performance of the male teachers of private higher secondary schools.
4. There will be significant impact of online teaching on the performance of the female teachers of private higher secondary schools.

Variables

In the present research study following variables are taken:

Independent Variable: 1. Online Teaching, 2. Methodology of Teaching

Dependent Variable: 1. Performance of Teachers

Area and Limitation of the Study

1. The present study will be delimited up to Raipur District of Chhattisgarh State.
2. The teachers of higher secondary schools will be considered as samples for the present study.
3. A number of 100 teachers from 10 higher secondary schools will constitute the sample size for the present research study among which 50 teachers were selected from 05 Government schools and remaining 50 teachers were selected from 05 private schools.

Research Method

Survey method of research was used in the present research study to collect the data.

Sample

In the present study 100 teachers from 10 higher secondary schools (05 Government schools and 05 private schools) were chosen by simple random sampling technique.

Tool

In the present study a self-made questionnaire was developed by the researcher with the help of subject experts on the selected variables for the data collection.

Varification of Hypothesis

1. Which of the methods engage you personally to learn digitally?

Type of School * Which Method Engage You to Learn Digitally

Table 01: Chi-Square Tests related to the methods engaged to learn digitally in case of types of schools

	Value	Df	Asymptotic Significance (2-sided)
Pearson Chi-Square	3.668 ^a	5	.598
Likelihood Ratio	4.829	5	.437
Linear-by-Linear Association	0.089	1	.765
N of Valid Cases	100.000		

(Source: Primary Data)

Gender * Which Method Engage You to Learn Digitally

Table 02: Chi-Square Tests related to related to the methods engaged to learn digitally in case of Gender

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	3.911 ^a	5	0.562
Likelihood Ratio	5.072	5	0.407
Linear-by-Linear Association	.000	1	1.000
N of Valid Cases	100.000		

(Source: Primary Data)

Table 01 shows that the chi-square value is found 3.66 in relation to methods engaged to learn digitally in case of types of schools i.e. Government and private schools. The value of chi-square 3.66 is found significant at degree of freedom 5. Table 02 shows that the chi-square is found 3.91 in relation to the methods engaged to learn digitally in case of gender i.e. male and female teachers which is significant.

2. Which of the digital collaborations enables you to work on a specific task at ease?

Type of School * Which of the digital collaborations enables you to work on a specific task at ease.

Table 03: Chi-Square Tests related to related to the Digital Collaborations in case of types of school

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	3.103 ^a	3	.376
Likelihood Ratio	3.136	3	.371
Linear-by-Linear Association	2.072	1	.150
N of Valid Cases	100.000		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 6.00.

(Source: Primary Data)

Gender * Which of the digital collaborations enables you to work on a specific task at ease.

Table 04: Chi-Square Tests related to related to the Digital Collaborations in case of Gender

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	9.26 ^a	3	.026
Likelihood Ratio	9.66	3	.022
Linear-by-Linear Association	8.93	1	.003
N of Valid Cases	100.00		

(Source: Primary Data)

Table 03 shows that the chi-square value is found 3.103 in relation to Digital Collaborations in case of types of schools i.e. Government and private schools. The value of chi-square 3.66 is found significant at degree of freedom 5. Table 04 shows that the chi-square is found 9.26 in relation to Digital Collaborations in case of gender i.e. male and female teachers which is significant.

3. Which of the digital approaches motivate you to learn?

Type of School * Which of the digital approaches motivate you to learn

Table 05: Chi-Square Tests related to related to the Digital Approaches in case of types of schools

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	4.58 ^a	3	.205
Likelihood Ratio	4.76	3	.190
Linear-by-Linear Association	1.54	1	.214
N of Valid Cases	100.00		

(Source: Primary Data)

Gender * Which of the digital approaches motivate you to learn

Table 06: Chi-Square Tests related to related to the digital approaches in case of Gender

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	.83 ^a	3	.841
Likelihood Ratio	.83	3	.841
Linear-by-Linear Association	.68	1	.407
N of Valid Cases	100.00		

(Source: Primary Data)

Table 05 shows that the chi-square value is found 4.58 in relation to Digital approaches which motivates to learn in case of types of schools i.e. Government and private schools. The value of chi-square 3.66 is found significant at degree of freedom 3. Table n06 shows that the chi-square is found .83 in relation to Digital approaches which motivates to learn in case of gender i.e. male and female teachers which is not significant.

4. My experience with online learning from home digitally:

Type of School * My experience with online learning from home digitally

Table 07: Chi-Square Tests related to related to the experience with online learning from home digitally in case of type of schools

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	15.39 ^a	3	.002
Likelihood Ratio	20.08	3	.000
Linear-by-Linear Association	7.69	1	.006
N of Valid Cases	100.00		

(Source: Primary Data)

Gender * My experience with online learning from home digitally

Table 08: Chi-Square Tests related to related to the experience with online learning from home digitally in case of gender

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	4.93 ^a	3	.177
Likelihood Ratio	4.99	3	.172
Linear-by-Linear Association	.09	1	.758
N of Valid Cases	100.00		

(Source: Primary Data)

Table 07 shows that the chi-square value is found 15.39 in relation to experience with online learning from home digitally in case of types of schools i.e. Government and private schools. The value of chi-square 3.66 is found significant at degree of freedom 3. Table 08 shows that the chi-square is found 4.93 in relation to experience with online learning from home digitally in case of gender i.e. male and female teachers which was significant.

5. Which type of recorded video lecture is more effective for learning?

Type of School * Which type of recorded video lecture is more effective for learning?

Table 09: Chi-Square Tests related to related to the type of recorded video lecture is more effective for learning in case of type of schools

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	1.13 ^a	4	.889
Likelihood Ratio	1.52	4	.823
Linear-by-Linear Association	.74	1	.389
N of Valid Cases	100.00		

(Source: Primary Data)

Gender * Which type of recorded video lecture is more effective for learning?

Table 10: Chi-Square Tests related to related to the type of recorded video lecture is more effective for learning in case of gender

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	1.13 ^a	4	.889
Likelihood Ratio	1.52	4	.823
Linear-by-Linear Association	.74	1	.389
N of Valid Cases	100.00		

(Source: Primary Data)

Table 09 shows that the chi-square value is found 1.13 in relation to the type of recorded video lecture is more effective for learning in case of types of schools i.e. Government and private schools. The value of chi-square 3.66 is found significant at degree of freedom 3. Table 10 shows that the chi-square is found 1.13 in relation to the type of recorded video lecture is more effective for learning in case of gender i.e. male and female teachers which is significant.

6. Which type of quiz is more effective for testing the understanding?

Type of School * Which type of quiz is more effective for testing the understanding?

Table 11: Chi-Square Tests related to related to the type of quiz which is more effective for testing the understanding in case of type of schools

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	1.52 ^a	3	.678
Likelihood Ratio	1.52	3	.676
Linear-by-Linear Association	.97	1	.323
N of Valid Cases	100.00		

(Source: Primary Data)

Gender * Which type of quiz is more effective for testing the understanding?

Table 12: Chi-Square Tests related to related to the type of quiz which is more effective for testing the understanding in case of gender

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	1.52 ^a	3	.678
Likelihood Ratio	1.52	3	.676
Linear-by-Linear Association	1.36	1	.243
N of Valid Cases	100.00		

(Source: Primary Data)

Table 11 shows that the chi-square value is found 1.52 in relation to the type of quiz which is more effective for testing the understanding in case of types of schools i.e. Government and private schools. The value of chi-square 1.52 is found significant at degree of freedom 3. Table 12 shows that the chi-square is found 1.13 in relation to the type of quiz which is more effective for testing the understanding in case of gender i.e. male and female teachers which is significant.

7. Online teaching–learning takes place effectively because:

Type of School * Online teaching–learning takes place effectively because:

Table 13: Chi-Square Tests related to related to the factors which enhances effectiveness of online teaching–learning in case of type of schools

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	.932 ^a	3	.818
Likelihood Ratio	.934	3	.817
Linear-by-Linear Association	.772	1	.379
N of Valid Cases	100.00		

(Source: Primary Data)

Gender * Online teaching–learning takes place effectively because

Table 14: Chi-Square Tests related to related to the factors which enhances effectiveness of online teaching–learning in case of gender

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	.88 ^a	3	.829
Likelihood Ratio	.88	3	.829
Linear-by-Linear Association	.27	1	.598
N of Valid Cases	100.00		

(Source: Primary Data)

Table 14 shows that the chi-square value is found .88 in relation to the factors which enhances effectiveness of online teaching–learning in case of types of schools i.e. Government and private schools. The value of chi-square 1.52 is not found significant at degree of freedom 3. Table 14 shows that the chi-square is found .88 in relation to the factors which enhances effectiveness of online teaching–learning in case of gender i.e. male and female teachers which is not significant.

8. Which of the following statements is true of online learning off-campus?

Type of School * Which of the following statements is true of online learning off-campus?

Table 15: Chi-Square Tests related to related to the off-campus online learning measures in case of type of schools

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	2.87 ^a	3	.411
Likelihood Ratio	2.90	3	.406
Linear-by-Linear Association	2.04	1	.152
N of Valid Cases	100.00		

(Source: Primary Data)

Gender * Which of the following statements is true of online learning off-campus?

Table 16: Chi-Square Tests related to related to the off-campus online learning measures in case of gender

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	.61 ^a	3	.894
Likelihood Ratio	.61	3	.893
Linear-by-Linear Association	.44	1	.504
N of Valid Cases	100.00		

(Source: Primary Data)

Table 15 shows that the chi-square value is found 2.87 in relation to the off-campus online learning measures in case of types of schools i.e. Government and private schools. Table 16 shows that the chi-square is found .61 in relation to the off-campus online learning measures in case of gender i.e. male and female teachers which is not significant.

9. At home/place of residence, how many responsibilities do you have?

Type of School * At home/place of residence, how many responsibilities do you have?

Table 17: Chi-Square Tests related to related to the holding responsibilities at home in case of type schools

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	1.13 ^a	3	.770
Likelihood Ratio	1.13	3	.769
Linear-by-Linear Association	.86	1	.353
N of Valid Cases	100.00		

(Source: Primary Data)

Gender * At home/place of residence, how many responsibilities do you have?

Table 18: Chi-Square Tests related to related to the holding responsibilities at home in case of gender

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	.08 ^a	3	.994
Likelihood Ratio	.08	3	.994
Linear-by-Linear Association	.03	1	.853
N of Valid Cases	100.00		

(Source: Primary Data)

Table 17 shows that the chi-square value is found 1.13 in relation to the holding responsibilities at home in case of types of schools i.e. Government and private schools which is significant. Table 18 shows that the chi-square is found .08 in relation to the holding responsibilities at home in case of gender i.e. male and female teachers which was not significant.

10. Which of the following devices do you use for your online learning?

Type of School * Which of the following devices do you use for your online learning?

Table 19: Chi-Square Tests related to related to the devices used for online learning in case of type of schools

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	2.01 ^a	3	.570
Likelihood Ratio	2.02	3	.568
Linear-by-Linear Association	1.43	1	.231
N of Valid Cases	100.00		

(Source: Primary Data)

Gender * Which of the following devices do you use for your online learning?

Table 20: Chi-Square Tests related to related to the devices used for online learning in case of gender

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	1.37 ^a	3	.711
Likelihood Ratio	1.38	3	.709
Linear-by-Linear Association	1.02	1	.311
N of Valid Cases	100.00		

(Source: Primary Data)

Table 19 shows that the chi-square value is found 2.01 in relation to the devices used for online learning in case of types of schools i.e. Government and private schools which is significant. Table 20 shows that the chi-square is found 1.37 in relation to the devices used for online learning in case of gender i.e. male and female teachers which was significant.

Findings

- Results revealed that the chi-square value which is found 3.66 in relation to methods engaged to learn digitally in case of types of schools i.e. Government and private schools was found significant at degree of freedom 5. Similarly the chi-square value which is found 3.91 in relation to the methods engaged to learn digitally in case of gender i.e. male and female teacher was is significant.
- Results revealed that the chi-square value is found 3.103 in relation to Digital Collaborations in case of types of schools i.e. Government and private schools. The value of chi-square 3.66 is found significant at degree of freedom 5. Similarly it was found that the chi-square value of 9.26 in relation to Digital Collaborations in case of gender i.e. male and female teachers was found significant.
- Results shows that the chi-square value is found 4.58 in relation to Digital approaches which motivates to learn in case of types of schools i.e. Government and private schools. The value of chi-square 3.66 is found significant at degree of freedom 3. Results further showed that the chi-square is found .83 in relation to Digital approaches which motivates to learn in case of gender i.e. male and female teachers which was not significant.
- Results showed that the chi-square value is found 15.39 in relation to experience with online learning from home digitally in case of types of schools i.e. Government and private schools. The value of chi-square 3.66 is found significant at degree of freedom 3. Results showed that the chi-square is found 4.93 in relation to experience with online learning from home digitally in case of gender i.e. male and female teachers which was significant.

5. Results shows that the chi-square value is found 1.13 in relation to the type of recorded video lecture is more effective for learning in case of types of schools i.e. Government and private schools. The value of chi-square 3.66 is found significant at degree of freedom 3. Results showed that the chi-square is found 1.13 in relation to the type of recorded video lecture is more effective for learning in case of gender i.e. male and female teachers which is significant.
6. Results showed that the chi-square value is found 1.52 in relation to the type of quiz which is more effective for testing the understanding in case of types of schools i.e. Government and private schools. The value of chi-square 1.52 is found significant at degree of freedom 3. Results further showed that the chi-square is found 1.13 in relation to the type of quiz which is more effective for testing the understanding in case of gender i.e. male and female teachers which is significant.
7. Results showed that the chi-square value is found .88 in relation to the factors which enhances effectiveness of online teaching-learning in case of types of schools i.e. Government and private schools. The value of chi-square 1.52 is not found significant at degree of freedom 3. Results further showed that the chi-square is found .88 in relation to the factors which enhances effectiveness of online teaching-learning in case of gender i.e. male and female teachers which is not significant.
8. Results revealed that the chi-square value is found 2.87 in relation to the off-campus online learning measures in case of types of schools i.e. Government and private schools. Results further showed that the chi-square is found .61 in relation to the off-campus online learning measures in case of gender i.e. male and female teachers which was not significant.
9. Results showed that the chi-square value is found 1.13 in relation to the holding responsibilities at home in case of types of schools i.e. Government and private schools which is significant. Results further showed that the chi-square is found .08 in relation to the holding responsibilities at home in case of gender i.e. male and female teachers which was not significant.
10. Results showed that the chi-square value is found 2.01 in relation to the devices used for online learning in case of types of schools i.e. Government and private schools which is significant. Results further showed that the chi-square is found 1.37 in relation to the devices used for online learning in case of gender i.e. male and female teachers which was significant.

Suggestions

1. When it comes to online learning, utilizing technology is absolutely crucial for success. There are many ways that those who are teaching need to prepare to implement technology inside their classrooms, especially when they are primarily connecting with students online.
2. Teachers should plan to spend the first several days of class helping students understand the technology and learn how to work with it. Practice exercises are a great way for students to try out the technology and make sure they understand what to do, asking questions and getting help before projects begin. This learning curve time and hands-on practice will help students and those who are teaching them alike be prepared and work out any kinks in the system.
3. Many online teachers will still want to hold lectures or instruction time for students. There are many video conferencing options that allow teachers to connect with their students at a certain time each day. Zoom, Microsoft Teams, and Google Hangouts are all popular options for educators to use. These video conferencing systems allow online teachers to set specific times that their students will log in to view a lecture or have class, giving those who are teaching online an opportunity to help explain concepts in a way that students can see. They can also enable students to get together for projects or collaboration, or meet with the person who teaches them one-on-one.

4. Teachers who aren't interested in doing a live video conference setup for their classroom may instead prefer previously recorded videos. Teachers can use their webcam or a video recorder to create videos for their students. Those who are teaching can use free applications like YouTube, Vimeo, and Microsoft Teams as a resource to upload videos for their students to watch. This allows teachers to record themselves giving lectures and allow students to watch it on their own time.
5. Screen capture technology allows those who are teaching to show what they are doing on their own computer to help them understand. This can be extremely helpful when the people who teach are showing students how to set up a project, demonstrating a concept, or wanting to clearly show students what they need to do.

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