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CHILDREN'S ONLINE CLASS ATTENDING BEHAVIOUR AS OBSERVED BY THEIR PARENTS

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Abstract

The school students tend to be mischievous and create issues in the classroom by their playful activities. The students' mischievous behaviours cause disruption in classes affecting the flow of the teaching-learning process. The class management and engaging students in learning process are an enormous task for some teachers. During this pandemic, students were forced to attend online classes where they exhibited the different behaviour from offline classes. The teachers were left with no choice but to manage the situation virtually. The parents who observed their children's online class attending behaviour could comment on the effectiveness of learning process. The main objective of this study was to find out the students' online class attending behaviour as observed by their parents. The survey method, one of the types of descriptive research method was used for this study. The five-point Likert type rating scale was prepared by the researcher to collect primary data. The research tool was circulated online through social media. Random sampling method was used to collect 100 samples. From the parents' opinion, it was found that there exists significant difference in students' behaviour in online class based on their gender, standard in which they are studying and residential location.

Keywords: *Online class, Parent, Student, Opinion, Behaviour*

Introduction

On March 17th 2020, all the educational institutions were asked to close down temporarily and instructed to send all students to home especially hostel students because of Covid 19 break down all over the world. After one week, on march 23rd 2020 complete lockdown were imposed by the government of India. This was a starting point of unimaginable revolution in history of Indian education system. Though video classes were prevalent before the pandemic, it got a firm foot during this period.

Generally, students were asked to keep the smart phone or laptop whichever smart device they are attached to concentrate on their studies. This pandemic forced parents to provide at least one smart device to their kids, so that they can attend online classes. Numerous software applications were introduced to keep the teaching and learning process on track. India being a developing country and also a country with huge stratification financially as well as socially found it very difficult to cope up with online class during the initial days of the pandemic. Gradually the students got adapted to online class. In the mid of these, this whole process of online class and the parents observing their children during the teaching learning process was new and different. Usually, parents have least participation in Indian education system but pandemic changed the whole scenario. The parents had increased involvement and participation in online classes, starting from setting up the device, charging the device,

answering the questions instead of kids, listening to the teaching process etc., Since India is a developing country, not many of the parents were able to provide enough resources for online classes as well as schools were also not able to conduct classes.

Need for the Study

Parents being in home observed their kids' learning better than any other period in their life especially in the education process. There is always difference in how students behave when they have teachers in classroom and not in classroom. There are students who are interested to go to schools only when they have sports class, the ones who take leave when there is any test in the class or acts sick in the classroom to avoid the test. The students' online class attending behaviour to be analysed in terms of their active participation in learning, dress code, willingness to answer questions and so on. Since parents were the immediate observers of students in the online learning, they were able to identify students' behaviour while getting ready to attend online classes, learning new concepts, integrity in attending online examination, respect for their subject teachers etc.

Objective

The primary objective of the study was to find out children's online class attending behaviour as observed by their parents and to find out whether there is significant difference in children's online class attending behaviour based on the gender of the students, class in which students are studying and their residential area.

Literature Review

Rikisha Bhaumik and Anita Priyadarshini (2020) in the mid of covid peakness in India conducted research among senior secondary students about their digital literacy, availability of learning material, difference in the mode of classes, readiness for online mode and the stress they had due to sudden transition in teaching-learning pattern. They found out that only 35.2% people found online class effective than offline classes. It also revealed the lacking digital skills in teachers and students. Nearly 40% of the sample preferred to study online as they liked independent learning.

Eva Yi Hung Lau et al. (2021) tried to find a connection between parent's satisfaction and length of online class as well as amount of homework/assignment given in association with child competence in independent learning. They found out that parent's satisfaction is more when the child is competent in independent learning.

Philip and Beth (2020) found out the difference in performance (exam grades) of students in a subject called accounting principles who attended classes in three different modes (face-to-face, hybrid, online). The result found is performance of students who attended online and hybrid classes were better than students who attended offline classes. The only exception is based on gender where girls outperformed boys in offline class and vice versa.

Emine and Gürbüz (2021) through their research identified 27 different misbehaviours in students in online class. They quoted that there is decrease in misbehaviour among students

in online class than offline class along with the occurrence of some new behaviour in online class. Teachers reported that some behaviour in online class can be controlled.

Engin and Cennet (2021) were eager in finding the parents opinion about distance education (online class) and also the involvement of them in supporting their children during online classes. They identified that parents were interested, followed and participated in their children's distance education. According to parents, controlling the internet usage were very difficult because of increased access to devices. In general parents were positive about distance classes and they informed that children's interest decreased if they have issues with technology.

Research Method and Research Tool

This quantitative study was done using survey method. A five-point Liker type rating scale with 16 statements to measure students' behaviour during online classes was developed by the researcher. A Google form link was created and circulated to parents whose children attended virtual mode of class, recorded video or both.

Sampling Technique and Sample Size

Simple random sampling method was used to collect the data. Totally 106 responses were received, out of which 100 responses were eligible for the analysis the remaining incomplete responses were discarded. Variables like gender, class in which the students are studying and their residential location were analysed with the parents' observation on students' behaviour during online classes.

Data Analysis and Interpretation

The data were analysed using an open-source software Libre Office Calc and MS-Excel. The t-test value, F-ratio and p-values were calculated and inferences were made based on p-values.

Table 1: Frequency Distribution of the Sample based on Gender, Class and Residential Location

Variables	Frequency	Percentage	Mean	S.D
Gender				
Male	39	39	55.71	9.65
Female	61	61	61.19	9.81
Class				
Lower Primary School	26	26	55.26	9.58
Upper Primary School	27	27	57.88	10.47
High School	24	24	64.95	8.87
Higher Secondary School	23	23	58.56	9.08
Residential Location				
Taluk	44	44	61.79	9.78
Municipality	21	21	55.16	8.54
Corporation	17	17	52.64	9.63
Metropolitan	18	18	62.44	9.33

Table 2: t-Test Results on Children's Online Class Attending Behaviour as observed by their Parents

Child's Gender	N	Mean Max:80	S. D	t-value	p-value	Level of Significance
Male	39	55.71	09.65	2.74	0.007 (p<0.05)	0.05
Female	61	61.19	09.81			

From Table 2, the calculated t-value and p-value were 2.74 and 0.007 respectively. The low p-value ($0.007 < 0.05$) indicated that there was a significant difference between male and female children in their online class attending behaviour. The mean score of female children (61.19) was greater than male children, which implied that the female children demonstrated more involvement during online classes than male children.

Table 3: F-Test Results on Children's Online Class Attending Behaviour as Observed by their Parents based on the Class in which they are Studying

Class	SS	df	MS	F	p-value	Level of Significance
Between Groups	1251.25	3	417.08	4.56	0.004 (p<0.05)	0.05
Within Groups	8776.39	96	91.42			
Total	10027.64	99				

From Table 3, the calculated F-value of Analysis of Variance test (ANOVA) and p-value were 4.56 and 0.004 respectively. The low p-value ($0.004 < 0.05$) indicated that there was a significant difference in children's online class attending behaviour bases on their class. Therefore, post-hoc test was conducted to identify the groups that caused difference in the mean scores.

Table 4: Post Hoc Test Results on Children's Online Class Attending Behaviour as Observed by their Parents Based on the Class in which they are Studying

S.No.	Class	N	Mean	Class	N	Mean	p-value
a	Lower Primary	26	55.26	Upper Primary	27	57.88	0.751
b	Lower Primary	26	55.26	High School	24	64.95	0.003
c	Lower Primary	26	55.26	Higher Secondary	23	58.56	0.626
d	Upper Primary	27	57.88	High School	24	64.95	0.047
e	Upper Primary	27	57.88	Higher Secondary	23	58.56	0.995
f	High School	24	64.95	Higher Secondary	23	58.56	0.107

From the parents' opinion, it was found out that there exists significant difference in behaviour of lower primary children and high school children. The mean scores of high school children (64.95) were higher than the mean scores of lower primary children (55.26). Likewise, significant difference was found between the behaviour of upper primary children

and high school children. The mean score of upper primary children (57.88) was lesser than the mean score of high school children. (Table 4)

The p-value was less than 0.05 in other comparisons between the classes in which they study points out that there exist no significant differences between them. Hence, there is no difference in behaviour of children in other compared classes in which they study based on their parents' opinion (Table 4).

Table 5: F-Test Results on Children's Online Class Attending Behaviour as Observed by their Parents based on the Residential Location

Resident Location	SS	df	MS	F	p-value	Level of Significance
Between Groups	1483.20	3	494.40	5.55	0.001 ($p < 0.05$)	0.05
Within Groups	8544.43	96	89.00			
Total	10027.63					

From Table 5, the calculated F-value of Analysis of Variance test (ANOVA) and p-value were 5.55 and 0.001 respectively. The low p-value ($0.001 < 0.05$) indicated that there was a significant difference in children's online class attending behaviour based on their residential location. Therefore, post-hoc test was conducted to identify the groups that caused difference in the mean scores.

Table 6: Post Hoc Test Results on Children's Online Class Attending Behaviour as Observed by their Parents based on the Residential Location

S.No.	Resident location	N	Mean	Resident location	N	Mean	p-value
a	Taluk	44	61.79	Municipality	21	55.16	0.071
b	Taluk	44	61.79	Corporation	17	52.64	0.005
c	Taluk	44	61.79	Metropolitan	18	62.44	0.995
d	Municipality	21	55.16	Corporation	17	52.64	0.769
e	Municipality	21	55.16	Metropolitan	18	62.44	0.117
f	Corporation	17	52.64	Metropolitan	18	62.44	0.015

The post-hoc test between the groups revealed that there was significant difference between the behaviour of children attending online class in taluk and corporation region. The mean score of children in taluk region (61.79) was greater than the mean scores of children in corporation region (52.64). In the same way, there was significant difference in behaviour of children in corporation and metropolitan region. The mean score of children in corporation region (52.64) was lower than the mean score of children in metropolitan region (62.44).

From the comparisons between other groups of children based on residential location, it was found there exists insignificant difference in the behaviour of children attending online class. Hence there is no significant difference in behaviour of children attending online class in other compared resident locations.

Discussion and Conclusion

The purpose of the study is to find if there exists difference in students' behaviour in online class based on the opinion of the parents. Students usually do lots of misbehaviour in the classroom which happens under the school environment while in home environment it is different. So, our study focused on the behaviour of students in online class from parents' opinion based on the gender, class in which they are studying and locality of the student. It was found that there exists significant difference in students' behaviour based on the above mentioned three variables. This study covered only 100 samples and its impact can be broadened by increasing the number of samples. It also gave us that there is difference in how children behave based on the gender, education level and the locality.

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PARENTS' OPINION ON CHILDREN'S ATTITUDE TOWARDS ONLINE CLASSES DURING PANDEMIC

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Abstract

The purpose of this research was to find out the parents' opinion on children's attitude towards online classes during pandemic and to find out whether the attitude of the children differ significantly based on their gender, class and their residential area. The four-point Likert type rating scale was developed by the researcher to collect data. The data were collected from the parents of the students who attended online classes during the pandemic and the data were interpreted using t-test, ANOVA and p-value. The findings of this quantitative research revealed that the attitude of the students towards attending online classes differ significantly based on their gender, class and residential area as per their parents' opinion. In spite of being considered essential, the recent development in technology still could not replace traditional way of learning. This is evident from the attitude of the students towards online classes.

Keywords: *Attitude, Online class, Parents' opinion, Gender, Class level, Residential area, Technology and Recent developments*

Introduction

The year 2020 is another year of transition that can be marked in the history of education. The Covid-19 pandemic has caused radical changes in the lives of almost all the people across the world. The sudden radical changes demanded inventions and developments to find alternative ways to reach life goals. This proves a famous philosopher Plato's statement that says, "Necessity is the mother of invention."

The base for all the learning and development is education. But when all the educational institutions were closed due to the pandemic, there was a need to shift to online mode of teaching and learning. As per the need of the hour, most of the transactions, especially knowledge transactions were shifted to online platform to avoid stagnation. This caused new and different learning experiences for which technology lend its hands to provide learning support.

Need for the Study

In the history of education, the need for the up gradation of educational technology, curriculum, teaching methods along with the need for change in perspectives and understanding students' attitude and behaviour have called for attention all together since the pandemic. Among the many recent scientific advancements, the development in educational technology stands remarkable and very essential. However, the development can be considered useful only if the attitude of the ones who are using it is positive. This research

focuses on the attitude of the students towards attending online classes from the perspective of their parents.

Objective of the Research

The primary objective of the research was to find out parents' opinion on children's attitude towards attending online classes and to find out if there is significant difference in children's attitude towards attending online classes based on their gender, class and residential area.

Attitude

Attitude is the way one reacts to a particular situation. It is based on their likes and dislikes. Attitude can be defined as "a psychological tendency that is expressed by evaluating a particular entity with some degree of favour or disfavour." (Eagly & Chaiken, 1993, p.1)

Online Classes

Due to the pandemic, teaching and learning have been shifted to online platform. Online classes take place in varied ways. Students learn online either face-to-face or through shared recorded video or the combination of both, without meeting the teacher in person in physical classroom. Though the current generation students are more acquainted with the smart phones, internet and other electronic devices, they display different attitudes when it comes to using the same for learning. Since, this online learning takes place while at home, parents have an opportunity to observe the attitude and behaviour of their children towards attending classes online.

Review of Related Literature

In the research done by Bhaumik & Priyadarshini (2020) opinions on e-readiness and on the shift from face-to-face to online mode of learning were collected from higher secondary students. The findings of the research revealed that only 35.2% of learners considered online classes constructive and 40% of the students were on the positive side to continue with online mode as it let them study on their own pace. The study recommends that there needs to be firming of digital pedagogy for effective teaching online and students have to be trained to adopt to individualized learning.

The research done by Ziadat (2021) focused on the effects of online learning on the students with disability and the problems faced by their parents. The perspectives of the parents of the disabled students indicated that the students were engaged mostly with the smart devices and that they were isolated socially and the parents were dissatisfied with the online learning content and management; there was no appropriate supportive learning devices that the students with disability could use for learning.

Akkas & Ocak (2021) studied teachers' perspectives on the misbehaviour of the students during online classes. Through this study they were able to find out different unruly behaviour such as making noise, turning off the webcam, absenteeism, losing interest and so

on during the online classes. The study reveals a few ways in which the misbehaviour of the students could be minimized as suggested by the teachers.

Jafaar, et al. (2021) have shared their views in their article which reveals the difficulty of the teaching community, especially the teachers handling higher classes in using technology. They elaborate on the loaded stress that the teachers have in preparing for teaching while going through pandemic situation as well as trying to acquaint themselves with the new technologies. This article insists that the teachers need to spend more time learning the technology in order to deliver the content effectively through online mode.

Research Method and Research Tool

The survey method was used to explore the attitude of the children towards attending online classes based on their parents' opinions and to find out the differences in the attitude based on the gender, class and locality of the children. The four-point Likert type rating scale with thirty statements was prepared by the researcher and it was translated into regional language as well to reach the parents, who could not understand English. The Google form link was created and circulated to the respondents using social media applications to collect data.

Sampling Technique and Sample Size

The population chosen for the research was parents of the students, who attended online classes during the pandemic in Tamil Nadu. Considering the fact that some schools did not offer online classes and some parents were not able to buy smart devices for their children, the researcher used non-random sampling technique for this study. The data were collected from 108 parents whose children attended online classes during pandemic. The final sample size was 106 as two incomplete data sheets were discarded.

Table 1: Frequency Distribution of the Sample based on Gender, Class and Residential Area

Variables	Frequency	Percentage	Mean	S.D
Gender				
Male	41	38.68	65.46	09.00
Female	65	61.32	72.49	12.51
Class				
Lower Primary	26	24.53	66.23	11.80
Upper Primary	28	26.43	65.46	10.05
High School	29	27.35	77.10	11.37
Higher Secondary	23	21.69	69.78	10.17
Residential Area				
Taluk	49	46.23	71.27	12.79
Municipality	21	19.81	67.38	10.90
Corporation	17	16.04	62.88	08.74
Metropolitan	19	17.92	74.74	09.27

Analysis and Interpretation

The data were analyzed using MS-Excel and Jamovi (Free Open-Source Software). The values of t-test and One-way Analysis of Variance (ANOVA) were computed to make inferences on the data.

Table 2: t-Test Results on Parents' Opinion on their Children's Attitude Towards Online Classes based on Gender

Child's Gender	N	Mean Max:120	S. D	t-value	p-value	Level of Significance
Male	41	65.5	09.00	3.12	0.002 (p<0.05)	0.05
Female	65	72.5	12.50			

The computed t-value and p-value were 3.12 and 0.002. The p-value indicated that there was a significant difference in children's attitude towards attending online classes based on their gender as per their parents' opinion. The mean score of female children (72.5) was greater than the male children (65.5). The parents' opinion indicated that the female children's attitude towards online class was more favourable than their counterparts.

Table 3: F-test Results on Parents' Opinion on the Attitude of their Children Towards Attending Online Classes based on the Class

Class	SS	df	MS	F	p-value	Level of Significance
Between Groups	2404.384	3	801.4612	6.75	0.000 (p<0.05)	0.05
Within Groups	12102.18	102	118.6488			
Total	14506.57	105				

The computed F-ratio and p-value were 6.75 and 0.000. The p-value indicated that there was a significant difference in children's attitude towards online classes based on their class as per their parents' opinion. The post-hoc test was conducted to find out the groups that caused significant in the mean scores.

Table 4: Post Hoc Test Results on Parents' Opinion on Children's Attitude Towards Attending Online Classes based on the Class

Class	N	Mean Max: 120	Class	N	Mean Max: 120	p-value	
a	Lower Primary	26	66.23	Upper Primary	28	65.46	0.994
b	Lower Primary	26	66.23	High School	29	77.10	0.002
c	Lower Primary	26	66.23	Higher Secondary	23	69.78	0.666
f	Upper Primary	28	65.46	High School	29	77.10	0.001
e	Upper Primary	28	65.46	Higher Secondary	23	69.78	0.497
f	High School	29	77.10	Higher Secondary	23	69.78	0.082

The parents' opinion indicated that there was a significant difference between Lower Primary and High school children in their attitude towards online class. The mean score of High school children (77.10) was greater than their counterparts (66.23). Similarly, there was a significant difference between Upper Primary and High school children in their attitude towards online class. The mean score of High school children (77.10) was greater than their counterparts (65.46).

However, the parents' opinion revealed that children's attitude towards online class did not differ significantly with other Class levels. The computed p-values are greater than 0.05 level of significance for other class levels, which indicates that children do not differ significantly in their attitude towards online class as per their parents' opinion.

Table 5: F-Test Results on Parents' Opinion on the Attitude of their Children towards Attending Online Classes based on their Residential Area

Residential Area	SS	df	MS	F	p-value	Level of Significance
Between Groups	1504.61	3	501.5379	3.93	0.011 ($p < 0.05$)	0.05
Within Groups	13001.95	102	127.4701			
Total	14506.57	105				

The computed F-ratio and p-value were 3.93 and 0.011. The p-value indicated that there was a significant difference in children's attitude towards online classes based on their residential area as per their parents' opinion. The post-hoc test was conducted to find out the groups that caused significant in the mean scores.

Table 6: Post Hoc Test Results on Parents' Opinion on their Children's Attitude towards Attending Online Classes based on their Residential Area

Residential Area	N	Mean Max: 120	Residential Area	N	Mean Max: 120	p-value	
a	Taluk	26	71.27	Municipality	28	67.38	0.553
b	Taluk	26	71.27	Corporation	29	62.88	0.047
c	Taluk	26	71.27	Metropolitan	23	74.74	0.667
f	Municipality	28	67.38	Corporation	29	62.88	0.615
e	Municipality	28	67.38	Metropolitan	23	74.74	0.174
f	Corporation	29	62.88	Metropolitan	23	74.74	0.012

The parents' opinion indicated that there was a significant difference between the children living in Taluk and Corporation area in their attitude towards online class. The mean score of the children in Taluk area (71.27) was greater than their counterparts (62.88). Similarly, there was a significant difference between the children living in Corporation and Metropolitan area in their attitude towards online class. The mean score of Metropolitan (74.74) was greater than their counterparts (62.88).

However, the parents' opinion revealed that children's attitude towards online class did not differ significantly with other area students. The computed p-values were greater than 0.05 level of significance for the children in other residential areas, which indicated that children did not differ significantly in their attitude towards online class as per their parents' opinion.

Discussion and Conclusion

The findings of this research state the students' attitude towards attending online classes differ significantly based on their gender, standard and resident location as per the observation of their parents. This research brings out the fact that the developments in technology may impact the growth of any field including education but it can never be equal to or replace traditional way of learning. The research was conducted based on the data collected from only limited number of samples. This research can be broadened by collecting more data and including variables such as different type and board of school. This research can also be studied in different perspective by finding the association between the impact of independent variables on the dependent variable.

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PERCEPTION OF PROSPECTIVE TEACHERS ON ONLINE EXAMS DURING PANDEMIC

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Abstract

Proper management of exams whose main objective aimed at assessment and evaluation is more important in learning management system. Due to the pandemic situation that arouse worldwide, traditional method of teaching learning and evaluation techniques has emerged as online mode. The researcher gone through various research papers which focused mainly on ways to conduct online examination and its drawbacks, importance of online examination system. The researcher found a research gap in determining the perception of prospective teachers in writing online examination. This paper attempts to explore the perception of prospective teachers towards online examination system during pandemic. The approach used for research is quantitative approach. The findings of the research paper tell that the prospective teachers have a positive perception towards online examination system during pandemic. The difficulties they faced during online examination are no proper internet facility, lack of electricity. The prospective teachers at present are in a situation to handle the difficulties faced during online examination system.

Keywords: *Online examination, Perception, ICT*

Introduction

The teaching learning and examination system has updated at present because of the increasing use of Information and Communication Technology (ICT). Due to pandemic, all the institutions like schools and colleges shifted their teaching learning mode from offline i.e., face to face interaction to online mode - digitally. Since there was continuous lockdown, at the earlier stages, all educational institutions struggle a lot to handle the classes. They adopted ICT methods to complete their syllabus. Even though the syllables are reducing, they found it difficult to convey their ideas and knowledge to students in online mode. Continuous teaching with no response from students made the teachers to think of an evaluation system to assess the students online. Online exams came into existence and there was lot of advantages and disadvantages aroused.

Regarding the use of ICT in the field of education a famous quote tells that, "ICT makes teaching more meaningful, creative, attractive and funny and encourage learners for self-learning. It opens all the doors of learning evidence". They are converting an academic institution into a home-based institution where students can create a universe that includes anything they can imagine in a virtual environment of interaction, simulation, and cooperation. The online test system is simple to analyse and saves time and money, but it comes with a number of drawbacks, including security, validity, and fairness. Also cheating in online examinations has to be prevented.

Review of Literature

Tugrultasciet.al (2014), in his paper “A Novel Agent-Supported Academic Online Examination System” proposed that the online examination system architecture enables integrated management of key functions as well as the use of analysis reports related to questions and exams. It was discovered that the proposed intelligent agent-assisted online exam system detects errors to a great extent.

I-Fan Liu et.al (2015), in his paper, “An Exploration into Improving Examinees’ Acceptance of Participation in an Online Exam” proposed the issues and challenges related to online exams. This study presented a research model that includes a notarization process (technical level) and an online exam policy (institutional level). The findings suggest that the monitoring and management procedures described in this model can greatly increase examinees' willingness to take online tests.

Dipali Rangatet.al (2018), in his paper “Importance of Online Examination system in India”, stated that online examination was developed to examine the student’s technical knowledge. The online examination system ensures that the results are provided in the shortest time possible. The outcomes are more precise. They also discussed the benefits and drawbacks of using an online test system.

Significance of Study

- To highlight the automation and planning of online examinations and assessment methods used.
- To make students feel comfortable and adopt to the new technology.
- To determine the perception of prospective teachers towards online examination system during pandemic.

Objectives of Study

1. To find out if there is any difference between the perception of prospective teachers and their educational qualification for online examination during pandemic.
2. To find out if there is any difference between the perception of prospective teachers and their age on online examination during pandemic.
3. To find out if there is any difference between the perception of prospective teachers and their place of residence for online examination during pandemic.
4. To find out if there is any difference between the perception of prospective teachers and the type of institution studied for online examination during pandemic.
5. To find out if there is any difference between the perception of prospective teachers and the number of semesters they attempted for online examination during pandemic.

Hypotheses

- There is no significant difference in perception of prospective teacher for online exams based on educational qualification.
- There is no significant difference in perception of prospective teacher for online exams based on age.

- There is no significant difference in perception of prospective teacher for online exams based on place of residence.
- There is no significant difference in perception of prospective teacher for online exams based on type of institution which they studied.
- There is no significant difference in perception of prospective teacher based on number of semesters they attended online exams.

Methodology

Perception of prospective teachers on online examination during pandemic is done through questionnaire using Google forms. Random sampling method is used for a population of around 156 prospective teachers. Pilot study for 25 samples is done to check the reliability and validity of the scale prepared by the researcher. The scale is reliable with value of 0.8266 and valid with value of 0.9092. A free open-source software Jamovi is used to analyze the collected data.

Analysis and Interpretation

Table 1: T-Test Between Educational Qualification and Perception of Prospective Teachers

		Statistic	df	p
percep	Student's t	-0.503	154	0.615

Since the calculated value (-0.503) is less than 1.96 (table value), then Null hypothesis is accepted. Therefore, it infers that there is no significant difference in perception of prospective teacher for online exams based on educational qualification.

Table 2: t-Test between Age and Perception of Prospective Teachers

		Statistic	df	p
percep	Student's t	-0.0543	154	0.957

Since the calculated value (-0.0543) is less than 1.96(table value), then Null hypothesis is accepted. Therefore, it infers that there is no significant difference in perception of prospective teacher for online exams based on age.

Table 3: t-Test between Place of Residence and Perception of Prospective Teachers

		Statistic	df	p
percep	Student's t	-0.125	154	0.901

Since the calculated value (-0.125) is less than 1.96 (table value), then Null hypothesis is accepted. Therefore, it reveals that there is no significant difference in perception of prospective teacher for online exams based on place of residence.

Table 4: t-Test between Type of Institution Studied and Perception of Prospective Teachers

		Statistic	df	p
percep	Student's t	0.531	154	0.596

Since the calculated value (0.531) is less than 1.96(table value), then Null hypothesis is accepted. Therefore, it reveals that there is no significant difference in perception of prospective teacher for online exams based on type of institution studied.

Table 5: One-way ANNOVA Test between Number of Semesters Attended Online and Perception of Prospective Teachers

	F	df1	df2	p
percep	0.739	2	34.2	0.485

Since the calculated value (0.739) is less than 2.378(table value), then Null hypothesis is accepted. Therefore, it reveals that there is no significant difference in perception of prospective teacher for online exams based on number of semesters attended online.

Educational Implications

- As the study aims to find the perception towards online exams, the result of analysis and interpretation of the data collected shows a positive approach.
- The variables like age, qualification, place where they reside, type of institution studied and number of semesters appeared online showed no significant difference in perception of prospective teachers on online exams.
- The attitude towards online examination does not show more differences based on the variables and perception.
- The study is only limited to prospective teachers who attempted exams through online.
- Since all the prospective teachers are young age and technology friendly, they can accept the changes so that their perception showed no significant difference with any variable of research is a limitation to this study.

Conclusion

Traditional teaching and learning processes have evolved into ICT-based pedagogical learning, effective e-assessment should be considered. Although ICT has not been fully integrated for teaching and learning, it serves as a supplement to traditional teaching as well as a means of dealing with challenging situations during pandemic. Perception of prospective teachers is satisfactory towards online examination. However, skill-based training should be provided to them to handle the difficult situations.

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A STUDY ON TECHNOLOGICAL SELF-EFFICACY OF HIGH SCHOOL TEACHERS

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Abstract

Technological self-efficacy has come to play a vital role in the preparation and implementation of teachers who can successfully use educational technology to enhance learning activities of the students. In this study, the investigators have attempted to examine the level of technological self-efficacy of high school teachers with respect to the gender, type of school and medium of instruction. A survey method research design was adopted for this study. Among simple random sampling methods was used to select participants. The sample of the study consists of 120 high school teachers who are working in at sankarankovil and kadayanallur taluks in the 2021–2022 academic year. The technological self-efficacy scale was used for collecting data in this study. T-test and one-way analysis of variance (ANOVA) was employed to analyze data. According to the obtained results, the level of technological self-efficacy can be considered moderate with respect to the gender, type of school and medium of instruction. No significant different were found between the high school teachers with respect to gender. On the other hand, this research found that, private school teachers are having better technological self-efficacy than the aided and government school teachers. It also found that, English medium teachers are better than the Tamil medium teachers in their technological self-efficacy. Implications of the study are discussed based on the findings.

Keywords: *Technological self-efficacy, High school teachers*

Introduction

The development and the improvements in technology have prominently provided the development of technologies that supported learning and teaching. But integrating technology into teaching is among the greatest challenges facing today's teachers. With promote in technology, the need for equipping and organizing teaching environments with technology is increasing. Therefore, it has become more important for teachers who use technology-supported teaching use in their classes to have digital efficacy (Yanpar Yelken, 2019). Technology-supported teaching practices include built up reality, mobile learning, social media and products evolve on various platforms. These applications mainly influence information technology courses directly; on the other hand, teachers of other regulation use them in their classrooms or utilize technological tools or practices in their lessons (Tekin, 2021). Successful use of technology in the classroom has the potential to engage students and promote conceptual comprehension. Technology use is critical to charming in the global society; thus, using technology for learning is necessary for the population of students found in schools today.

Self-efficacy has frequently been reported as a major component in understanding the frequency and success with which individuals use technology. It can be postulated that

teachers' beliefs concerning their capacity to work successfully with technology in general are directly related to their combination of technology in teaching. Consequently, the evaluation of technology self-efficacy is a useful standard of teacher education programs' success in preparing graduates to use instructional technology.

Need and Significance of the Study

Today we are living in the modern world which was fully controlled and occupied by technology. Everything becomes comfort and easier by the advent of technology in this modern era. Technology integration in learning is much more importance because we able to get connect to the students everywhere in the world like remote areas where we can offer courses while integrating technology, it promotes motivation and enthusiastic in learning. So students could able to get an idea more on practical than theoretical.

Technology self-efficacy, for purposes of this study, referred to teachers 'belief in their ability to integrate technology into their classroom successfully. Also, note that technology integration for purposes of this study involved going beyond using technology for administrative or housekeeping tasks such as record keeping, taking attendance, sending emails, or presenting information via a Power Point presentation. Technology integration referred to the actual and deliberate fusing of technology tools into both teaching and learning aspects of the classroom. Teachers may integrate technology through online blogging activities, creating websites for interactive use with their students, creating original products through the medium of various computer software programs, etc. Finally, factors influencing technology referred to specifically identified reasons or aspects that played a role in developing a teacher's level of technology self-efficacy. Therefore the investigator undertakes a study on technological self-efficacy of high school teachers.

Objectives of the Study

The researcher has framed the following objectives for the present study.

1. To find out the level of technological self-efficacy of high school teachers.
2. To find whether there is any significant difference between male and female teachers in their technological self-efficacy.
3. To find whether there is any significant difference among government, aided and private school teachers in their technological self-efficacy.
4. To find whether there is any significant difference between Tamil and English medium school teachers in their technological self-efficacy.

Null Hypotheses

1. There is no significant difference between male and female teachers in their technological self-efficacy.
2. There is no significant difference among government, aided and private school teachers in their technological self-efficacy.
3. There is no significant difference between Tamil and English medium school teachers in their technological self-efficacy.

Methodology

The researcher used the survey method for the present study. For data collection, the investigator used “The technological self-efficacy scale” which comprised 34 statements, which was developed and validated by Muthulakshmi (investigator) and Anandaraj (Research supervisor) in 2021. The population for the study includes all the high school teachers who are working in government, aided, and private schools of sankarankovil and kadayanallur taluks, Tamil Nadu. From the population, the investigator selected 120 school teachers as sample from 16 high and higher secondary schools in sankarankovil and kadayanallur Taluks by using simple random sampling technique. The data were analyzed using Mean, Standard Deviation, 't' test, and 'F' test.

Analysis of the Data

The data were subjected to statistical treatment leading to the findings, which may satisfy the requirements of the objectives of the study.

Table 1: Level of Technological Self-Efficacy of High School Teachers with Respect to Gender, Type of School and Medium of Instruction

Variable			Low	Moderate	High
Gender	Male	No	3	40	8
		%	5.9	78.4	15.7
	Female	No	7	53	9
		%	10.1	76.8	13.0
Type of school	Government	No	5	31	1
		%	13.5	83.8	2.7
	Aided	No	4	53	3
		%	6.7	88.3	5.0
	Private	No	1	9	13
		%	4.3	39.1	56.5
Medium of instruction	Tamil medium	No	10	92	5
		%	9.3	86.0	4.7
	English medium	No	0	1	12
		%	0.0	7.7	92.3

It is deduce from the above table that, 5.9% of male teachers have low, 78.4% of them have moderate and 15.7% of them have high level of technological self-efficacy. 10.1% of female teachers have low, 76.8% of them have moderate and 13.0% of them have high level of technological self-efficacy.

13.5% of government school teachers have low, 83.8% of them have moderate and 2.7% of them have high level of technological self-efficacy. 6.7% aided schoolteachers have low, 88.3% of them have moderate and 5.0% of them have high level of technological self-efficacy. 4.3% of private school teachers have low, 39.1% of them have moderate and 56.5% of them high level of technological self-efficacy.

9.3% of Tamil medium school teachers have low, 86.0% of them have moderate and 4.7% of them high level of technological self-efficacy. 0.0% of English medium school teachers have low, 7.7% of them have moderate and 92.3% of them high level of technological self-efficacy.

Ho1: There is no significant difference between male and female teachers in their technological self-efficacy.

Table 2: Difference Between Male and Female Teachers in their Technological Self-Efficacy

Gender	N	Mean	SD	Calculated 't' value	Remarks
Male	51	57.45	3.568	1.406	NS
Female	69	56.45	4.217		

(at 5% level of significance the table value of 't' is 1.97, NS - Not Significant)

It is inferred from the above table that, there is no significant difference between male and female teachers in their technological self-efficacy.

Ho2: There is no significant difference among government, aided and private school teachers in their technological self-efficacy.

Table 3: Difference Among Government, Aided and Private School Teachers in their Technological Self-Efficacy

Source of Variation	Sum of Squares	Degrees of freedom	Variance estimated	Calculated 'F' value	Remarks
Between	415.380	2	207.690	16.647	S
Within	1459.745	117	12.476		

(at 5% level of significance, for (2,117) df the table value of 'F' is 3.06, S -Significant)

It is inferred from the above table that, there is significant difference among government, aided and private high school teachers in their technological self-efficacy.

The Tukey test result shows that, the private school teachers (mean = 60.70) are having better technological self-efficacy than the aided (mean = 55.98) and government school teachers (mean = 55.95).

Ho3: There is no significant difference between Tamil and English medium school teachers in their technological self-efficacy.

Table 3: Difference Between Tamil and English Medium School Teachers in their Technological Self-Efficacy

Medium of Instruction	N	Mean	SD	Calculated 't' value	Remarks
Tamil	107	55.97	3.036	10.103	S
English	13	64.31	2.780		

(at 5% level of significance the table value of 't' is 1.97, S -Significant)

It is inferred from the above table that, there is significant difference between Tamil and English medium school teachers in their technological self-efficacy. While comparing the mean scores of Tamil and English medium teachers, English medium teachers (mean = 64.31) are better than the Tamil medium teachers (mean = 55.97) in their technological self-efficacy.

Findings of the Study

The findings derived from the study are:

1. The level of technological self-efficacy of high school teachers is found to be moderate with respect to the gender, type of school and Medium of instruction.
2. There is no significant difference between male and female teachers in their technological self-efficacy
3. Private school teachers are having better technological self-efficacy than the aided and government school teachers.
4. English medium teachers are better than the Tamil medium teachers in their technological self-efficacy.

Educational Implications

Technological developments have prominently supported the teaching-learning process in an effective manner. Hence, integrating technology in all the subjects has offered a potential to revive and change process of education. In this research, the investigators found that, private school teachers have better technological self-efficacy than aided and government school teachers. This may be due to the fact that private school teachers are provided training and continued supports after training have significantly higher self-efficacy and confidence to integrate technology for learning. This research also found that English medium teachers are better than the Tamil medium teachers in their technological self-efficacy. This may be due to the fact that English medium teachers are able to understand the terms and conditions used in the applications at the same time as able to handle the technology very easily. So, teachers should use computer and smart phone based teaching methodologies like online learning platforms, augmented reality, online tutorial systems and virtual classrooms for their academic subject activities. These activities will also be helpful to improve the technological self-efficacy of the teachers. Hence, this research suggests teachers should equip themselves by learning the online courses through a reputed platform, so that they can acquire and update their technological knowledge.

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BLOG-BASED LEARNING IN CURRICULUM

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Abstract

The study was conducted an experiment of Blog-based learning in curriculum. Dr. Sivanthi Aditanar College of Education, Tiruchendur, Tamilnadu was selected to provide for two equivalent groups that is there were 20 students in each group in second year B.Ed students were randomly formed on the basis of their academic achievement. The tools used were the blog based learning developed by the investigators, and an achievement test. After a pre-test for both the groups, the control group was taught the topic 'Resources of curriculum' by using traditional methods. The experimental group learned the same topics, in the same period, through blog based learning. The post-test was conducted for both the groups. Based on finding in gain score experimental group students were better than the control group students in their gain scores, as well as in the attainment of knowledge, understanding and application in their gain scores. Blog based learning is effective and easily in teaching curriculum concepts to students.

Introduction

A blog is refer to concept information website published on the World Wide Web may be, often formal and informal diary-style text entries (posts). Posts are typically displayed in dissenting order, so that the most present post appears first, at the top of the web page (Forsey, C. 2020). Blogging refers to photography, writing, and other social media that's self-published internet. Blogging started as an chance for individuals to write diary-style posts (Sadiq, T. 2020). An education blog or edublog is a blog (weblog) created for educational purposes. Blogs offer a huge tutor power as an online resource. There are many approaches to use an education blog they offer many advantage. From all subjects blogging is great approach to take literacy across the curriculum. Blogging not only requires subject mastery knowledge, it also takes good writing ability (Pappas, C. 2020).

Review of Related Literature

The results revealed that the subjects' ISS and AREPDiT post-test mean scores were significantly higher than their pre-test mean scores and that their misapprehension about AREPs were substantially eliminated by the intervention. The subjects' responses to the blog use were generally positive (Kahraman, S. 2021). The findings indicated a significant influence between learner-learner interaction, learner-teacher interaction and learner-content interaction on subjective learning outcome. In contrast, there was no significant influence of learner-teacher interchange on objective learning outcomes, but learner-learner and learner-content did significantly affect objective learning outcomes. A significant relationship was also found between students' subjective and objective learning outcomes (Quadir, B., Yang, J. C., & Chen, N. 2019). The results of this study showed that in blog environments, students' sense of community, peer feedback perception and course engagement were significant predictors of their learning. The study findings have implications for both teachers

and students and can be used as a structure to help the successful use of educational blogs (Gurer, M. D. 2020).the results of a survey of a group of 37 teachers who used LePress for at least six months. The study demonstrates that by using LePress, teachers experienced an increase level of control over several aspects of the course and this reinforced their insight about the ease of use of the system (Tomberg, V., Laanpere, M., Ley, T., & Normak, P. 2013).

Need and Significance for the Study

Curriculum concepts transformation outside the classroom today is attractive and quick, but it is boring inside the classroom. Blogs help grow learning communities, let students take ownership of their learning, encourage creativity of expression, create multimodal spaces, give students opportunities to address audiences other than their professors, foster opportunities for reflection and provide them with tangible evidence of their learning over time. From morning to evening, more than five hours, students are made to sit in the same place and listen to one way communication to the subject concept push upon them. Self-learning through blog based learning could remove the monotony of the classroom and provide motive and also reduce the workload of the teachers in the long run.

Objective for the Study

1. To find out significant difference between control and experimental group students in their gain scores.
2. To find out significant difference between control and experimental group students in attainment of knowledge their gain scores.
3. To find out significant difference between control and experimental group students in attainment of understanding their gain scores.
4. To find out significant difference between control and experimental group students in attainment of application their gain scores.

Hypotheses for the Study

- H_01 . There is no significant difference between control and experimental group students in their gain scores.
- H_02 . There is no significant difference between control and experimental group students in attainment of knowledge their gain scores.
- H_03 . There is no significant difference between control and experimental group students in attainment of understanding their gain scores.
- H_04 . There is no significant difference between control and experimental group students in attainment of application their gain scores.

Method for the Study

Dr. Sivanthi Aditanar College of Education, Tiruchendur, Tamilnadu was selected to provide for the experimental and control groups. There were 20 students in each group in second year B.Ed students. Two equivalent groups were randomly formed on the basis of

their academic achievement. The tools used were the blog based learning developed by the investigators, and an achievement test in curriculum developed by the investigators.

After a pre-test for both the control and the experimental groups, the control group was taught the topic 'Resources of curriculum' by using chalk and talk methods for ten days one hour a day. The experimental group learned the same topics, in the same period, through developed blog based learning. The post-test was conducted for both the groups. The gain score were calculated by subtracting the pre-test scores form the post-test scores.

Hypothesis Analysis

H₀1. There is no significant difference between control and experimental group students in their gain scores.

Table 1: Difference between Control and Experimental Group Students in Gain Scores

Group	Mean	S.D	Calculated 't' value	Remark at 5% level
Control (N=20)	22.2	8.8	4.6981	S
Experimental (N=20)	10.5	6.6		

(At 5% level of significance, the table value of 't' is 2.03)

It is inferred from the above table that the calculated 't' value (4.6981) is greater than the table value (2.03). Hence the null hypothesis (H₀1) is rejected. That means there is a significant difference between the control and experimental group students in their gain scores.

H₀2. There is no significant difference between control and experimental group students in attainment of knowledge their gain scores.

Table 2: Difference between Control and Experimental Group Students in Attainment of Knowledge in the Gain Scores

Group	Mean	S.D	Calculated 't' value	Remark at 5% level
Control (N=20)	4.25	2.77	4.5134	S
Experimental (N=20)	1.35	2.53		

(At 5% level of significance, the table value of 't' is 2.03)

It is inferred from the above table that the calculated 't' value (4.5134) is greater than the table value (2.03). Hence the null hypothesis (H₀2) is rejected. That means there is a significant difference between the control and experimental group students in the attainment of knowledge in the gain scores.

H₀₃. There is no significant difference between control and experimental group students in attainment of understanding their gain scores.

Table 3: Difference between Control and Experimental Group Students in Attainment of Understanding in the Gain Scores

Group	Mean	S.D	Calculated 't' value	Remark at 5% level
Control (N=20)	8.85	3.75	4.8546	S
Experimental (N=20)	3.70	3.17		

(At 5% level of significance, the table value of 't' is 2.03)

It is inferred from the above table that the calculated 't' value (4.8546) is greater than the table value (2.03). Hence the null hypothesis (H₀₃) is rejected. That means there is a significant difference between the control and experimental group students in the attainment of Understanding in the gain scores.

H₀₄. There is no significant difference between control and experimental group students in attainment of application their gain scores.

Table 4: Difference between Control and Probing Group Students in Attainment of Application in the Gain Scores

Group	Mean	S.D	Calculated 't' value	Remark at 5% level
Control (N=20)	9.10	3.83	3.4959	S
Experimental (N=20)	4.85	4.58		

(At 5% level of significance, the table value of 't' is 2.03)

It is deduce from the above table that the calculated 't' value (3.4959) is greater than the table value (2.03). Hence the null hypothesis (H₀₄) is rejected. That means there is a significant difference between the control and experimental group students in the attainment of application in the gain scores.

Interpretation

In sum, we can assert that the experimental group students were better than the control group students in their gain scores, as well as in the attainment of knowledge, understanding and application in their gain scores. The results may be due to the fact that the blog based learning is effective in teaching curriculum to B.Ed second year students. Since the blog based learning is developed by using hyper link, image, video lecture is attractive. This may have also motivated students to understand concepts and theories in curriculum.

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