

# Virtual Internship: Pre-Service Teachers' Perception

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## Abstract

*The COVID-19 cases locked different sectors of the world. The education sector also faced a crisis. Acquisition of knowledge should not have an end. Knowledge acquired through internship must be purposeful. It helps to gain experience in one's preference and is a stepping stone to one who is looking for a job. At present, an essential issue in teacher education is how to design and implement internships. The ongoing COVID-19 lockdown has paved the path for E-internship. The emergency transition to E-internship is by force. E-internship, also known as the virtual internship, is a way of acquiring work experience through a remote setting where the intern is physically absent in an organisation. The study attempts to find the level of perception towards virtual internship because of physical absence. The researcher surveyed participating students, which revealed their general perception, concerns, and technical obstacles regarding virtual internship by responding to the statements provided. The investigator prepared the scale and gave it to them, an analysis of which is given here in this paper. The investigator further analysed the level of pre-service teachers' perception towards virtual internships. Online learning continues to be a global phenomenon in a variety of fields, but especially in education. The results of this study were; 50 (17.9%) of the sample have low level, 186 (66.4%) of the sample have moderate level, and 44 (15.7%) of the sample have a high level of perception towards virtual internship.*

*Keywords: Virtual internship, Perception, Pre-service teachers, etc.*

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## Introduction

Internships in a virtual mode are an illustration of computer-based or computer instructed classroom simulations. The virtual internship provides a digital space for engaging all kinds of training to the pre-service teachers. It gives professional or occupational training to the pre-service teachers same as normal internship practices. We can define virtual internships in teacher education as online environments in which pre-service teachers plan, implement and assess their teaching through authentic virtual platforms (Thiyagu and Joshith 2021). Virtual internships have adopted the theory of situated learning (Huu

and Tai, 2019), which can be explained as the nature of understanding and learning concerning being situated in a specific situation or environment because pre-service teachers often experience difficulties when acting as teachers (Keefe, 2020). Virtual internships could be useful in teacher education. The difficulties in transportation and the social distancing challenge faced by the students during the COVID-19 lockdown situation and their academic-curricular requirement have forced them to take up e-internships in Kerala. This study analyses the positive and negative effects of virtual internships on students and their learning during the COVID-19 scenario. The current

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situation has forged an understanding that technologies provide multiple opportunities to start life during lockdown time. The purpose of this study was to determine the pre-service teachers' perception of virtual internships.

## Research questions

The research questions of the study were:

1. What is a sample in terms of their experience in using the internet?
2. How many hours do the respondents spend on the internet for a virtual internship?
3. What are the preferred devices used by pre-service teachers while undergoing virtual internships?
4. What is the preferred virtual platform used by the pre-service teachers while participating in a virtual internship?
5. What is the perception of pre-service teachers towards virtual internship in terms of all the statements?
6. What is the level of B.Ed. students' perception towards virtual internships?

## Methods

The present study employed the survey method to find out the pre-service teacher's perception towards a virtual internship in Kasaragod district. The investigator adopted a normative survey to collect the data.

## Population and sample

In this study, all the pre-service teachers studying in Bachelor of Education in Kasaragod district have been taken as the population for the study.

The simple random sampling method was adopted to choose the sample in the present study. Two hundred eighty pre-service teachers were selected as the sample from Kasaragod district. They represented all the selected independent variables, namely gender, subject stream, type of management and age, marital status, type of residence, qualification, etc.

## The tool used for the study

Here the researcher prepared a five-point perception rating scale. Here the samples were asked to indicate a degree of agreement and disagreement with each series of statements. Each scale item has five response categories ranging from strongly agree and strongly disagree. It is a five-point scale ranging from the value 1 to 5. The researcher prepared a tool consisting of some questionnaires and sub-samples regarding the basic information and some statements related to the features of virtual internship designed to get the intended response from the pre-service teachers. The nature of questions and statements were formatted to know the pre-service teacher's perception about virtual internship in Kasaragod district. In the present study, the investigator employed Cronbach's Alpha (0.955) and the split-half method (0.874) for establishing the reliability of the tools, which indicates a high level of internal consistency of the tool. Rating scale of perception towards virtual internship measures what it is intended to an extremely high degree of satisfaction. Thus, the validity of the tool was also established.

## Data analysis and major findings

Primary data were collected from pre-service teachers in Kasaragod with the help of a well-structured questionnaire. Two hundred eighty respondents were selected using a simple random sampling method.

**Research question 1:** What is a sample in terms of their experience in using the internet?

**Table 1:** Analysis of the sample in terms of their experience in using the internet

Years of experience	No. of pre-service teachers	Percentage (%)
2 years	18	6.4
2-5 years	80	28.6
Above 5 years	182	65

The above table presents the sample's distribution in terms of their experience in using the internet. As seen from the above, 6.4 per cent of the sample had two years of experience in internet usage, 28.6 per cent had two to five years of experience in internet usage, and the remaining 65 per cent had above five years of experience in internet usage. It seems most of the samples have above five years of experience in using the internet.

**Research question 2:** How many hours do the respondents spend on the internet for a virtual internship?

**Table 2:** Analysis of the sample based on the duration of time spent on the internet

Time taken to spend in internet use	No. of pre-service teachers	Percentage (%)
5-10 hours	196	70.0
10-20 hours	43	15.4
20-30 hours	19	6.8
More than 30 hours	22	7.9

The above table presents the distribution of the sample in terms of the amount of time spent on the internet. As seen from the above table, 70 per cent of the sample was accessing the internet for 5-10 hours per day, 15.4 per cent was accessing the internet for 10 to 20 hours, 6.8 per cent was accessing for 20-30 hours, and the remaining 7.9 per cent was accessing the internet for more than 30 hours. The above table highlights that most pre-service teachers spend 5-10 hours on the internet during virtual internship.

**Research question 3:** What are the preferred devices used by pre-service teachers while undergoing virtual internship?

**Table 3:** Analysis of sample in terms of the preferred device used to take a virtual internship

Preferred device	No. of pre-service teachers	Percentage (%)
Mobile phone	238	85.0
Laptop	42	15.0

The above table shows the analysis of the sample in terms of pre-service teachers' preference of devices to take a virtual internship. As per the above table, 85 per cent of sample prefer to use a mobile phone to attend virtual internship and 15 per cent of students responded that they like to use a laptop during a virtual internship. It seems that the majority of the sample likes to use a mobile phone to attend a virtual internship.

**Research question 4:** What is a preferred virtual platform used by pre-service teachers while participating in a virtual internship?

**Table 4:** Analysis of sample in terms of the preferred platform used to take a virtual internship

Preferred platform	No. of pre-service teachers	Percentage (%)
Google meet	272	97.1
Zoom	6	2.1
WebEx	2	.7

The above table shows the analysis of the sample in terms of the pre-service teacher's preference of platform to take a virtual internship. As per the above table, 97.1 per cent of the sample prefers Google Meet to attend virtual internships, 2.1 per cent of the students responded that they like to use Zoom, 0.7 per cent of the students like WebEx. It seems that the majority of the sample likes to use Google Meet to attend virtual internship.

**Research question 5:** What is the perception of pre-service teachers towards a virtual internship in terms of all statements?

**Table 5:** Analysis of sample in terms of their perception towards virtual internship

Statements	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Virtual internship was more convenient and flexible	27 (9.6%)	89 (31.8%)	104 (37.1)	58 (20.7)	2 (.7)
Virtual internship made possible for all subject streams in the pre-service education	30 (10.7)	87 (31.1)	92 (32.9)	65 (23.2)	6 (2.1)
Virtual internship provides space for developing a rapport with students	34 (12.1)	87 (31.1)	96 (34.3)	59 (21.1)	4 (1.4)
Virtual internship makes me explore more and more online teaching tools	24 (8.6)	38 (13.6)	74 (26.4)	122 (43.6)	22 (7.9)
I believe that undergoing virtual internship is less expensive compared to the face-to-face internship programme	19 (6.8)	58 (20.7)	93 (33.2)	87 (31.1)	23 (8.2)
I believe that virtual internship is more systematic in execution and conduction compared to a face-to-face internship	36 (12.9)	96 (34.3)	89 (31.8)	46 (16.4)	13 (4.6)
Virtual internship provides a chance for us to develop an e-resource such as audio, video, text materials	24 (8.6)	13 (4.6)	84 (30.0)	123 (43.9)	36 (12.9)
Virtual internship helps me to enhance my digital skills	20 (7.1)	15 (5.4)	72 (25.7)	139 (49.6)	34 (12.1)
Virtual internship provides me a chance to explore more about the novel digital pedagogy	21 (7.5)	36 (12.9)	89 (31.8)	113 (40.4)	21 (7.5)
I feel virtual internships are more comfortable for a student who lives in a remote area	49 (17.5)	103 (36.8)	79 (28.2)	39 (13.9)	10 (3.6)
A virtual internship is a positive deviation from a traditional internship	32 (11.4)	43 (15.4)	90 (32.1)	103 (36.8)	12 (4.3)
Virtual internship offers a new experience for me to explore novel ideas in the pedagogical and technological aspects	23 (8.2)	27 (9.6)	93 (33.2)	117 (41.8)	20 (7.1)
Virtual internship provides more satisfaction and better adjustment in the classroom perspectives	40 (14.3)	96 (34.3)	81 (28.9)	55 (19.6)	8 (2.9)
I was attracted to virtual internship due to the novelty in its various features	35 (12.5)	50 (17.9)	105 (37.5)	80 (28.6)	10 (3.6)
Virtual internship provides diversity in teaching and learning	25 (8.9)	47 (16.8)	86 (30.7)	108 (38.6)	14 (5.0)
Virtual internship provides a space to us to rectify the mistakes of recorded classes easily before sending videos to our students	28 (10.0)	29 (10.4)	91 (32.5)	109 (38.9)	23 (8.2)
I feel more comfortable using virtual board-based digital writing than normal blackboard writing	42 (15.0)	107 (38.2)	85 (30.4)	38 (13.6)	8 (2.9)



Statements	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Virtual internship reduces stress and anxiety	34 (12.1)	86 (30.7)	105 (37.5)	46 (16.4)	9 (3.2)
Virtual internship increased my communication skills	43 (15.4)	92 (32.9)	92 (32.9)	51 (18.2)	2 (.7)
I think virtual internship overcomes many financial and geographic barriers that students face	24 (8.6)	45 (16.1)	116 (41.4)	71 (25.4)	24 (8.6)
I think completing an internship online requires sufficient knowledge of internet-related skills	28 (10.0)	25 (8.9)	90 (32.1)	108 (38.6)	29 (10.4)
Virtual internship increased my teaching confidence level	41 (14.6)	84 (30.0)	100 (35.7)	49 (17.5)	6 (2.1)
Virtual internship helped me manage time wisely	25 (8.9)	73 (26.1)	104 (37.1)	70 (25.0)	8 (2.9)
Virtual internship provides multiple skills-based learning opportunities	27 (9.6)	51 (18.2)	93 (33.2)	100 (35.7)	9 (3.2)
I feel virtual internship is largely an independent work	22 (7.9)	42 (15.0)	105 (37.5)	90 (32.1)	21 (7.5)
Virtual internship helped me create my own professional environment	27 (9.6)	48 (17.1)	113 (40.4)	90 (32.1)	2 (.7)
Virtual internship provides an opportunity to observe the mentors and my peer learners' teaching skills	39 (13.9)	52 (18.6)	114 (40.7)	67 (23.9)	8 (2.9)
Virtual internship provides me expertise in technological pedagogical and content knowledge (TPACK)	27 (9.6)	30 (10.7)	90 (32.1)	110 (39.3)	23 (8.2)
I may recommend other teacher trainees to undergo the virtual internship	46 (16.4)	55 (19.6)	109 (38.9)	61 (21.8)	9 (3.2)

**Statement 1:** Virtual internship was more convenient and flexible

Among 280 pre-service teachers, 20.7 per cent agreed, and .7 per cent strongly agreed that they found it more convenient and flexible, 31.8 per cent disagreed, 9.6 per cent strongly disagreed, and 37.1 per cent gave neutral responses. In terms of the hours of work, internship timelines, mode of practices, resource use they have more flexibility in virtual internship.

**Statement 2:** Virtual internship made possible for all subject streams in the pre-service education

Among 280 pre-service teachers, 23.2 per cent of the respondents agreed, and 2.1 per cent strongly agreed, 31.1 per cent

disagreed, 10.7 per cent strongly disagreed, and 32.9 per cent gave neutral responses. Virtual internship does not provide much emphasis on science subjects as it needs hands-on teaching activities. These responses happened due to the limitations of the virtual internship. A virtual internship is not possible for all the subjects as well as all the modes of teaching.

**Statement 3:** Virtual internship provides space for developing rapport with students

Among 280 pre-service teachers, 21.1 per cent of respondents agreed, and 1.4 per cent strongly agreed, 31.1 per cent disagreed, 12.1 per cent strongly disagreed, and 34.3 per cent gave neutral responses. The rapport between a teacher and student can be an

important factor in individual students' overall learning and success. It shows that building *rapport online* is tough sledding; one-to-one interactions among teachers and students are crucial for learning. Some pre-service teachers cannot be familiar with organising virtual classes in an interactive or engaging mode.

**Statement 4:** Virtual internship makes me explore more and more online teaching tools

Among 280 pre-service teachers, 43.6 per cent of the respondents agreed, and 7.9 per cent strongly agreed, 13.6 per cent disagreed, 8.6 per cent strongly disagreed, and 26.4 per cent gave neutral responses. Virtual internships provide an opportunity to use technology and hence learn multiple skills. So, it is beneficial for the students. Internship in an online mode provides a lot of scope to pre-service teachers to explore more online teaching, learning, and assessment tools.

**Statement 5:** I believe that undergoing virtual internship is less expensive than the face-to-face internship programme

Among 280 pre-service teachers, 31.1 per cent of the respondents agreed, and 8.2 per cent strongly agreed, 20.7 per cent disagreed, 6.8 per cent strongly disagreed, and 33.2 per cent gave neutral responses. Unlike traditional internships, virtual internships will not be expected to incur many expenses. They can work from anywhere in the world, meaning they can save money on rent and travel costs. It provides an opportunity to reduce money and wastage of time.

**Statement 6:** I believe that virtual internship is more systematic in execution and conduction than the face-to-face internship

Among 280 pre-service teachers, 16.4 per cent of the respondents agreed, and 4.6 per cent strongly agreed, 34.3 per cent disagreed, 12.9 per cent strongly disagreed, and 31.8 per cent gave neutral responses. Because of quick virtual adaptation in the internship field, it was not systematic in execution and conduction. Parallely we can plan to execute online internship.

**Statement 7:** Virtual internship provides a chance for us to develop e-resources such as audio, video, text materials

Among 280 pre-service teachers, 43.9 per cent of the respondents agreed, and 12.9 per cent strongly agreed, 4.6 per cent disagreed, 8.6 per cent strongly disagreed, and 30 per cent gave neutral responses. Virtual internships allow using e-resources as it is necessary for online internships. Teachers can develop a ppt, video materials as part of the online teaching. Similarly, in virtual internship, pre-service teachers can develop e-resources such as ppt, text, video, and audio files.

**Statement 8:** Virtual internship helps me to enhance my digital skills.

Among 280 pre-service teachers, 49.6 per cent of the respondents agreed, and 12.1 per cent strongly agreed, 5.4 per cent disagreed, 7.1 per cent strongly disagreed, and 25.7 per cent gave neutral responses. An internship can be organised through Skype, Google Meet, mail, etc. This enhances their digital skills. Virtual internship provides all the pre-service teachers an opportunity to explore and enhance their digital skills.

**Statement 9:** Virtual internship provides me a chance to explore more about the novel digital pedagogy

Among 280 pre-service teachers, 40.4 per cent of the respondents agreed, and 7.5 per cent strongly agreed, 12.9 per cent disagreed, 7.5 per cent strongly disagreed, and 31.8 per cent gave neutral responses. With the growing technology and widespread use of the internet, it is essential to know more about novel digital pedagogy, and virtual internships provide a chance for the same. The pre-service teachers were trained in the digital pedagogy aspects by their institutions before going in for virtual internship.

**Statement 10:** I feel virtual internships are more comfortable for students who live in a remote area

Among 280 pre-service teachers, 13.9 per cent of the respondents agreed, and 3.6 per cent strongly agreed, 36.8 per cent

disagreed, 17.5 per cent strongly disagreed, and 28.2 per cent gave neutral responses. Inadequate infrastructure, lack of strong internet connectivity, and no electricity in remote village areas affect their internship programmes. So, some of the trainees who live in a remote area do not feel comfortable.

**Statement 11:** Virtual internship is a positive deviation from a traditional internship

Among 280 pre-service teachers, 36.8 per cent of the respondents agreed, and 4.3 per cent strongly agreed, 15.4 per cent disagreed, 11.4 per cent strongly disagreed, and 32.1 per cent gave neutral responses. To cope with the challenges, it's necessary to have a better deviation towards online teaching and learning. A lot of the samples have a positive way of responding to this statement due to the alternative opportunity to undergo the internship.

**Statement 12:** Virtual internship offers a new experience for me to explore novel ideas in the pedagogical and technological aspects

Among 280 pre-service teachers, 41.8 per cent of the respondents agreed, and 7.1 per cent strongly agreed, 9.6 per cent disagreed, 8.2 per cent strongly disagreed, and 33.2 per cent gave neutral responses. Virtual internships provide an opportunity to make use of many novel ideas in technology and pedagogy and its benefits for the students. Most of the respondents responded positively.

**Statement 13:** Virtual internship provides more satisfaction and better adjustment in the classroom perspectives

Among 280 pre-service teachers, 19.6 per cent of the respondents agreed, and 2.9 per cent strongly agreed, 34.3 per cent disagreed, 14.3 per cent strongly disagreed, and 28.9 per cent gave neutral responses. Virtual internship does not provide face-to-face interaction with students, so they are not satisfied with the classroom perspective. Most of the respondents shared a negative feeling towards this statement as they are comfortable with face-to-face internship as compared to virtual internship.

**Statement 14:** I am attracted to virtual internship due to the novelty of its various features

Out of 280 pre-service teachers, 28.6 per cent respondents agreed, and 3.6 per cent strongly agreed, 17.9 per cent disagreed, 12.5 per cent strongly disagreed, and 37.5 per cent gave neutral responses. Digital technology is growing day by day, and virtual internships provide a chance to excel in it.

**Statement 15:** Virtual internship provides diversity in teaching and learning

Among 280 pre-service teachers, 38.6 per cent of the respondents agreed, and 5 per cent strongly agreed, 16.8 per cent disagreed, 8.9 per cent strongly disagreed, and 30.7 per cent gave neutral responses. Internship in the online mode allows diversity in teaching and learning tools as well as pedagogical practices.

**Statement 16:** Virtual internship provides us space to rectify the mistakes of recorded classes easily before sending videos to our students

Among 280 pre-service teachers, 38.9 per cent of the respondents agreed, and 8.2 per cent strongly agreed, 10.4 per cent disagreed, 10 per cent strongly disagreed, and 32.5 per cent gave neutral responses. Even if a mistake happens during the class lecture, the trainee can edit or rectify the mistake in the recorded video; after that, it can be shared with the students.

**Statement 17:** I feel more comfortable using virtual board-based digital writing than normal blackboard writing.

Out of 280 pre-service teachers, 13.6 per cent of the respondents agreed, and 2.9 per cent strongly agreed, 38.2 per cent disagreed, 15 per cent strongly disagreed, and 30.4 per cent gave neutral responses. The virtual board has many advantages over a normal blackboard, but due to some technical or internet issues and difficulties for them, most the respondents felt the virtual digital board was not more comfortable.

**Statement 18:** Virtual internship reduces stress and anxiety

Out of 280 pre-service teachers, 16.4 per cent of the respondents agreed, and 3.2 per cent strongly agreed, 30.7 per cent disagreed, 12.1 per cent strongly disagreed, and 37.5 per cent gave neutral responses. Experience in practice decreases anxiety among teachers. But technical problems and being a novice possibly causes more anxiety among teachers. Being uncomfortable of virtual internship creates stress and anxiety for pre-service teachers.

**Statement 19:** Virtual internship increased my communication skills

Out of 280 pre-service teachers, 18.2 per cent agreed, and .7 per cent strongly agreed, 32.9 per cent disagreed, 15.4 per cent strongly disagreed, and 32.9 per cent gave neutral responses. Virtual internship does not provide much chance for improvement of communication skills due to lack of face-to-face interaction and a professional environment.

**Statement 20:** I think a virtual internship overcomes many financial and geographic barriers that students face

Out of 280 pre-service teachers, 25.4 per cent of the respondents agreed, and 8.6 per cent strongly agreed, 16.1 per cent disagreed, 8.6 per cent strongly disagreed, and 41.4 per cent gave neutral responses. Virtual internships are not useful for students who are facing both geographic and economic challenges.

**Statement 21:** I think completing an internship online requires sufficient knowledge of internet-related skills

Out of 280 pre-service teachers, 38.6 per cent of the respondents agreed, and 10.4 per cent strongly agreed, 8.9 per cent disagreed, 10 per cent strongly disagreed, and 32.1 per cent gave neutral responses. To excel in a virtual internship, internet-related skills are needed. These basic computer skills when utilised for processing and presenting information help students achieve success.

**Statement 22:** Virtual internship increased my teaching confidence level

Out of 280 pre-service teachers, 17.5 per cent of the respondents agreed, and 2.1 per

cent strongly agreed, 30 per cent disagreed, 14.6 per cent strongly disagreed, and 35.7 per cent gave neutral responses. It's easy to lose confidence if we have stress and difficulties. So, it's difficult to gain confidence without proper facilities for the student. Also, the pre-service teachers do not have a proper feedback system to enhance teaching competency level through this virtual internship.

**Statement 23:** Virtual internship helped manage time wisely

Out of 280 pre-service teachers, 25 per cent of the respondents agreed, and 2.9 per cent strongly agreed, 26.1 per cent disagreed, 8.9 per cent strongly disagreed, and 37.1 per cent gave neutral responses. Virtual internships were more flexible in the case of time and location. It leads to wise time management.

**Statement 24:** Virtual internship provides multiple skills-based learning opportunities

Out of 280 pre-service teachers, 35.7 per cent of the respondents agreed, and 3.2 per cent strongly agreed, 18.2 per cent disagreed, 9.6 per cent strongly disagreed, and 33.2 per cent gave neutral responses. Through virtual internship, the trainees gained more skills, and these skills help them in future job opportunities.

**Statement 25:** I feel virtual internship is largely an independent work

Among 280 pre-service teachers, 32.1 per cent of the respondents agreed, 7.5 per cent strongly agreed, 15 per cent disagreed, 7.9 per cent strongly disagreed, and 37.5 per cent gave neutral responses. Since *virtual* classes often involve very little discussion and interaction with students and instructors, and no face-to-face interaction, some students feel isolated when they begin taking courses *online*. It provides a lot of space for independent work only.

**Statement 26:** Virtual internship helped me create my own professional environment

Out of 280 pre-service teachers, 32.1 per cent of the respondents agreed, and .7 per cent strongly agreed, 17.1 per cent disagreed, 9.6 per cent strongly disagreed, and 40.4



per cent gave neutral responses. A virtual internship provides a lot of professional experience, much like a traditional internship to the trainees.

**Statement 27:** Virtual internship provides an opportunity to observe the mentors and my peer learners teaching skills

Among 280 pre-service teachers, 23.9 per cent of the respondents agreed, and 2.9 per cent strongly agreed, 18.6 per cent disagreed, 13.9 per cent strongly disagreed, and 40.7 per cent gave neutral responses. All the trainees were undergoing virtual internship at the same time, so there is no opportunity for them to observe other peer trainees' sessions.

**Statement 28:** Virtual internship provides me expertise in the technological pedagogical and content knowledge (TPACK)

Among 280 pre-service teachers, 39.3 per cent of the respondents agreed, and 8.2 per cent strongly agreed, 10.7 per cent disagreed, 9.6 per cent strongly disagreed, and 32.1 per cent gave neutral responses. Virtual internships provide expertise in TPACK, including active engagement in their professional development and authentic learning experiences to make learning meaningful.

**Statement 29:** I may recommend other teacher trainees to undergo virtual internship

Out of 280 pre-service teachers, 21.8 per cent of the respondents agreed, and 3.2 per cent strongly agreed, 19.6 per cent disagreed, and 16.4 per cent strongly disagreed, and 38.9 per cent gave neutral responses. Virtual internship also has its own set of positives and negatives. Understanding both positive and negative sides and finding a better solution for these problems results in a good start for virtual internship. Most of the trainees were not satisfied with this virtual internship. Due to that, they are not ready to suggest undergoing virtual internship to others.

After analysing the whole response, the output had shown that the majority of the pre-service teachers have a moderate attitude

towards virtual internship, the remaining large portion of students have a low-level attitude towards virtual internship, and a few students have a high level of attitude towards virtual internship.

**Research Question 6:** What is the level of B.Ed. students' perception towards virtual internship?

**Table 6:** Analysis of sample in terms of the level of perception towards virtual internship

Level of perception towards virtual internship	No. of pre-service teachers	Percentage (%)
Low	50	17.9
Moderate	186	66.4
High	44	15.7

The above table presents the analysis of the sample in terms of the level of pre-service teachers' perception towards virtual internships. As seen from the above table, 50 (17.9%) of the sample have low level, 186 (66.4%) of the sample have moderate level, and 44 (15.7%) of the sample have a high level of perception towards virtual internship.

## Discussion of the result

This study attempted to find the perception of pre-service teachers towards virtual internships. This study intended to examine how students felt during virtual internship and to answer research questions on stress, concentration, difficulties, student convenience, etc., in appearing for online internship. As educational systems are adopting new and innovative methods, it is important to know pre-service teachers' perceptions of virtual internship. It is crucial to know how they perceive the different features of virtual internship. With widespread and increasing use of digital systems in higher education institutions, this study has identified several factors to be considered to support the successful implementation of virtual internships from the perspective of pre-service teachers.

## Educational implications

As the results of this study showed, students report that they are moderately satisfied with virtual internships and have mixed responses towards virtual internships. The virtual internship has pedagogical implications.

- The study helps the educationist to reform the education system giving due weightage to virtual internship.
- This study helps to measure the level of perceptions of virtual internships among pre-service teachers.
- This study can view from a global perspective.
- It is significant to place a greater role in virtual internship, As technology increases, online internships cannot be neglected.
- As virtual internship is not time and space-bound, it is useful for open and distance learning. It will increase enrolment in higher education and increase the possibility of earning and learning.
- Implementing virtual internship in the educational field develops a techno culture in students, leading to adaptation of virtual learning platforms for learning.
- Virtual internship promotes the globalisation of education and the exchange of knowledge resources.
- Virtual internship provides more space for self-assessment, leading to immediate self-correction and improvement in teaching and learning.
- Virtual internship widens the reach of education by providing an opportunity for rural and remote area students to participate in education.
- Through virtual internship, a student can improve their computer use for other educational purposes.
- The principals of collaborative schools and student teachers should be briefed before the internship programme so that all activities can be conducted in a smooth manner.

## Suggestions of the study

The findings of this study provide a foundation for future research, examining more specific factors that promote and inhibit student use of virtual internship and make them more comfortable about virtual internship in their higher education.

- As internship plays a vital role in higher education and technology has a great influence in education, it is necessary to provide adequate knowledge and awareness about new techniques. So, future research is necessary to perform more extensive case studies that can allow a little more deep and detailed exploration of the new generation students' opinions and views on a new system of internship techniques.
- This study may be extended to a large sample taking some more variables so as to represent a diversified population of participants. Owing to the constraint of time and money, only a few variables and few colleges could be included in this study. It is better to extend the study to various samples such as pre-service teachers in other districts, states, etc., and the people who are trying for professional jobs.
- Future research might focus on underserved, at-risk students and students with special needs and should ensure whether the virtual internship system is suitable for those students as mentioned above.
- The coming research should investigate the problem of fear of internet access, technical aptitude, independent learning skill among the students, and how to provide proper supervision to solve these problems.
- Future research should investigate whether a virtual internship is beneficial for reducing drop out of students between higher education courses.
- Further study should be conducted to identify the technical barriers of conducting virtual internships and how

to overcome them.

- Further research should be organised to find out the influence of virtual internships on the academic performance and behaviour of the students and actual practicing of school teachers.
- Future research should be conducted to identify the stressful factors of virtual internships.
- Future research should be conducted in an experimental manner to know the effectiveness of integrating virtual internship techniques on enhancing students' academic achievement in higher education settings.
- A future study should be conducted to know the possibilities and limitations of virtual internships in open and distance learning, blended learning and flipped classroom, etc.
- Future studies should be conducted to know how virtual internship is useful for the individual subject.

## Conclusion

This study has some implications for educators and teacher preparation programmes. Firstly, participants in this study had favourable experiences with virtual internship, and each of them saw value in this new experience. It may not be possible for all teacher preparation programmes to

partner with virtual schools to create a similar internship experience; virtual internships should at least become a part of the conversation regarding the future of teacher education (Kennedy et al., 2013). As online courses continue to proliferate in both public schools and universities, more consideration should be given to the preparation of quality teachers in this environment (Thiyagu, 2010). Online learning continues to be a global phenomenon in a variety of fields, especially in education (Ulusoy, 2016). Often, education is a field that remains reactive instead of proactive. Technological advances have changed the way that society operates, yet, somewhat strangely, most teacher preparation programmes continue to exist in the same fashion that they did 30 years ago (Chennat, 2014). This study highlights the value of a virtual internship experience as at least a component of teacher preparation programmes (Vijila and Thiyagu, 2019). Virtual schools are here to stay, so the time is now for teacher education programmes to begin actively considering ways to prepare future teachers for high-quality instruction in online classrooms (Kapur, 2018). The results of this study give a foundation for future research, examining more specific factors that promote and inhibit student use of virtual internship as well as make them more comfortable in a virtual internship in their higher education. Let us overcome the challenges of the future.

## References

- Chennat, S. 2014. Internship in a pre-service teacher education programme: A global perspective—*Australian Journal of Teacher Education*, 15(1). 5-10.
- Ellis, V., & Childs, A. 2019. Innovation in teacher education: Collective creativity in the development of a teacher education internship. *Teaching and Teacher Education*, 77(2), 277-286.
- Huu Nghia, T.L., & Tai, H.N. 2019. Preservice teachers' experiences with internship-related challenges in regional schools and their career intention: implications for teacher education programs. *Journal of Early Childhood Teacher Education*, 40(2), 159-176.
- Kapur, V. 2018. Deconstructing Teacher Education: Technology and the Intern. In *Dynamic Learning Spaces in Education* (pp. 51-68). Springer, Singapore.
- Keefe, E.S. 2020. Learning to practice digitally: Advancing preservice teachers' preparation via virtual teaching and coaching. *Journal of Technology and Teacher Education*, 28(2), 223-232.

- Kennedy, K., Cavanaugh, C., & Dawson, K. 2013. Preservice teachers' experience in a virtual school. *American Journal of Distance Education*, 27(1), 56-67.
- Thiyagu, K. 2010. Higher Secondary Students' Perception towards Information and Communication Technology at the school level. *Journal of Educational Research & Extension*, 47 (1), 5-8.
- Thiyagu, K., and V.P. Joshith. 2021. "Perception Towards The Use Of Digital Technology And Factors Generating TechnoStress Among Teacher Educators." *Review of International Geographical Education Online* 11 (5): 4182-92. <https://doi.org/10.48047/rigeo.11.05.300>.
- Ulusoy, M. 2016. Field experiences in teacher education: the perceptions and qualities of written reflections. *Teaching in Higher Education*, 21(5), 532-544.
- Vijila, C., and K. Thiyagu. 2019. "Awareness Questionnaire on Massive Open Online Course (MOOCs): A Tool Construction and Standardization." *International Journal of Recent Technology and Engineering* 8 (3). <https://doi.org/10.35940/ijrte.C5209.098319>.