PEDAGOGICAL AND TECHNICAL PROBLEMS ENCOUNTERED BY THE PRE-SERVICE TEACHERS DURING THE VIRTUAL INTERNSHIP

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ABSTRACT
The paper is intended to measure the level of the problem encountered by the pre-service teachers during virtual Internship. Therefore, the investigator adopted a normative survey to collect the data in this study of Pre-service teachers' problems towards virtual Internships in the Kasaragod district. Using the normative survey method, the investigator gathered information regarding Pre-service teacher's problems during virtual Internships. In this study, all the pre-service teachers studying in the Bachelor of Education Programme in Kasaragod have been taken as the population for the study. Two hundred forty pre-service teachers were selected as a sample of the study in a simple Random sampling method. The investigator prepared the tool to measure the problems of pedagogical aspects and technical issues encountered during the virtual internship. The findings of the study were: 40 (16.7%) of the sample have low level, 160 (66.7%) of the sample have moderate level, and 40(16.7%) of sample have a high level of problems encountered during virtual Internship. The pre-service students faced pedagogical challenges during the virtual internship. Similarly, most of the pre-service trainees were faced technical issues during the virtual internship.
Keywords: Virtual internship, Pedagogical and Techical Problems COVID-19 Pandemic, Pre-service teachers

INTRODUCTION

Problems are how people organize and interpret their sensory input, what they see and hear, and call it a reality. A pandemic is upon the world. The hunt for several pandemics continues, and now it is COVID -19. It knocked down different sectors of the world. The socio-economic conditions of the people were affected erroneously. The education sector also faced a downturn. But the phenomenal growth and penetration of the internet shifted education to online platforms. India has the second internet users after China. The unprecedented situation has made many thinks critically. Apart from online classes, E-internship is also getting popular among students. E-internship represents learning experiences that are often fully computer-mediated with supervisors, interns, and their colleagues located in different locations (Pearson, 2003). Internships must be a part of the curriculum because education aims to enrich the students with the knowledge and equip them with practical experiences (Cervetti et al., 2006). 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 steppingstone to one who is looking for a job. Since hands-on Internship or traditional Internship is in use now, many colleges are beginning with online internships, also known as virtual Internship or E-internship. E-internship, as an innovation of curriculum, has changed one's view of the work (Darling, 2010). As per the UGC guidelines, they recommend different universities of our country to encourage students to take up an 'online internship' to be performed digitally from home. The pandemic has forged an understanding that technologies provide multiple opportunities to embark life during the time of lockdown.

It can be claimed that the virtual internships are not really helpful helpful during the current lockdown due to COVID-19 Pandemic. Even after this emergency situation is over and the case returns to normal, many companies will still offer online internships. They will still be an important way to help you enhance your employability and career prospects. The main benefit of Virtual Internships is the flexibility they offer. You can intern remotely during your busy school or work schedule, and you don't have to adhere to the traditional office internship schedule (Theelen et al., 2019). The work can typically be done at any time of day, as long as you can meet the set deadlines. Some will find a virtual internship difficult because it does not have the structure an office-based training will provide. Overall, the success of an internship will depend on the interns. Intern will indeed have to be self-motivated and independent (Jen et al., 2020). Don't let this frighten, use an internship to develop self and learn from industry experts how to succeed in the chosen field.

It must be found out whether virtual internship contributes to better practice at higher education institutions. The problem is that much research has been done exploring the perceptions of teachers, instructors, and experts regarding eLearning. Still, when it comes to virtual Internships, there are many assumptions about student teachers' opinions, but relatively little research into what teacher educators think about virtual Internships

(Keefe, 2020). Therefore, this research aims to obtain first-hand information on pre-service teachers' problems encountered during virtual Internship. In this context, attempting the study on problem encountered during virtual Internship among the pre-service teachers is worthy. Therefore, the investigator will plan to do a research work on problem encountered during virtual internship among the pre-service teachers of Kasaragod district. The researcher conducted this survey among participating students, which revealed their general perception, concerns, technical obstacles regarding virtual Internships by giving a response to the statements provided.

PURPOSE AND RESEARCH QUESTIONS

This study intends to determine the level of the problems encountered during virtual internships among pre-service teachers of Kasaragod District in India. More precisely the answers of the following research questions were sought:

1. What is the sample in terms of their experience in using the internet?
2. How many hours, the respondents spending the time on the internet for virtual internships?
3. What are the pedagogical problems encountered by the pre-service teachers during the virtual internship?
4. What are the technical difficulties faced by the pre-service teachers during the virtual internship?
5. What is the level of the problem encountered by the pre-service teachers during the virtual internship?

METHOD

The investigator is intended to determine the level of the problem encountered during virtual Internships among pre-service teachers of Kasaragod District. Therefore, the investigator adopted a normative survey to collect the data in this study of Pre-service teachers' problems towards virtual Internships in Kasaragod district. Using the normative survey method, the investigator gathered information regarding Pre-service teacher's problems during virtual Internships.

In this study, all the pre-service teachers studying in Bachelor of Education Program in Kasaragod have been taken as the population for the study. The pre-service teachers had taken as the population, particularly in the Kasaragod district. Two hundred forty pre-service teachers were selected as a sample of the study in a simple Random sampling method.

Here the researcher prepared a 3-point perception of the virtual internship program rating scale. It is a three-point scale ranging from the value 0 to 2. The tool was prepared based on the two components, such as pedagogical problems and technological problems encountered during the virtual Internship. The investigator employed Cronbach's alpha (0.81) and split-half method (0.65) for reliability of the tools. Content validity was established as part of the standardization procedure of the tools.

FINDINGS

Reporting of the findings is organized according to the research questions.

Experience in Using the Internet

The Table 1 presents the sample's distribution in terms of their experience in using the internet. As seen from the above, 7.9 percent of the sample had two years of experience in internet usage. 32.5 percent of the sample had 2 to 5 years of experience in internet usage remaining 59.6 percent 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.

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	19	7.9
2-5 year	78	32.5
Above 5year	143	59.6

Time Spent on the Internet for Virtual Internships

The Table 2 presents the distribution of the sample in terms of the amount of time in spending on the internet per day. As seen from the above table, 45 percent of the sample accessing internet 5-10 hours per day38.8 percent of sample accessing internet 10 to 20 hours per day7.5 percent accessing 20-30 hours per day and the remaining 8.8 percent accessing internet more than 30 hours per day. The above table shows that most of the Pre-service teachers spend on the internet during virtual Internship 5-10 hours per day.

Table 2

Analysis of the Sample based on the duration of time spent in the internet per day

Time is taken to spend in internet use	No. of Pre-service teachers	Percentage (%)
5-10 hours	108	45.0
10-20 hours	93	38.8
20-30 hours	18	7.5
More than 30 hours	21	8.8

Pedagogical Problems Encountered

The Table 3 reveals the analysis of the problems encountered by pre-service teachers during the virtual internship. As can be observed from the table among 240 pre-service teachers, 137 samples were agreed, 86 were not sure with the statement of "*Issues are faced in planning a methodology for the virtual Internship"* 17 disagree with this statement. It is happened due not to receive the proper pedagogical training for online teaching. Regarding the statement, *"Has a negative effect on student management in the virtual platform",* 119 respondents were agreed, 83 were not sure with the statement and 38 disagree with this statement. Classroom management is not easy in the case of online classes. In addition, the pre-service teacher is not getting enough high-level training to maintain the online class discipline.

Among 240 pre-service teachers, 168 respondents agreed, 58 were not sure with the statement, "*Real classroom teaching experience was not perceived during the Virtual Internship"* and 14 disagreed with this statement. The pre-service teacher not perceived the actual classroom teaching experience in the virtual Internship. In Virtual teaching, the real-time face-to-face student and teacher interaction was lacking compared to the actual face-to-face classes. The virtual classroom provides only the artificial teaching experiences.

On the other hand, 139 respondents were agreed, 72 were undecided with the statement, "*Virtual mode instruction is not at all possible for the entire discipline subject"* and 29 disagree with this statement. The teacher may use a lot of teaching strategies while teaching the scientific concept to the students. However, in virtual teaching, the pre-service teacher cannot incorporate all the teaching methods or techniques for the entire subject. Especially for the science subject, the teacher may explain the concept in the face-to-face classes using some laboratory instruments or with demonstration mode. Still, in the virtual Internship, the pre-service teacher cannot use different teaching methods based on the subjects. More respondents (153) were agreed, 63 were undecided with the statement, "*Has limitation in developing teaching ability in individuals during VI"* and 24 disagree with this statement. The pre-service teacher was not able to receive immediate feedback during the virtual Internship. Virtual Internship may more comfortable to those who are expertise in the ICT skills compare to those who have good teaching aptitude, reasoning aptitude, etc. Virtual Internship provides a few scopes to developing the teaching ability of an individual.

Similarly, 169 respondents agreed, 55 were undecided with the statement, "*Not able to analyze the extra-curricular activities of students during the Virtual Internship"* and 16 disagreed. The virtual Internship does not provide enough space to observe the extracurricular actives of the students. Each student is unique in his/her caliber. However, in the online mode, the pre-service teacher cannot measure the students' extra-curricular activities correctly in various domains. Regarding the statement "*The virtual Internship does not integrate theory with practical"*, 149 respondents agreed, 73 were undecided with the statement, and 27 disagreed with this statement. Most of the course contents describe the normal face-to-face classroom transaction and its management procedure as pre-service teachers. However, during the virtual Internship, the practical teaching is not at all matched with the theoretical input gained during the course time.

Furthermore, 144 respondents agreed, 82 were undecided, and 14 disagreed with the statement, "*Creates problems in the evaluation of the achievement of the learners in the Virtual Internship"*. Virtual Internship is not provided a space to evaluate or measure the students' achievement. Organizing the Proctored examination is costly. Due to that, the training teacher could not incorporate the proper mechanism to measure the leaner's performance. And, concerning the statement "*Case study record preparation/counselling and guidance practices are very difficult during the Virtual Internship"*, 156 responders were agreed, 67 were undecided with the statement, and 18 disagree with this statement. The case study can be done in an intensive mode. The main objectives of the case study are to find out the learners' problems and give the proper remedies. In the virtual mode, we could not connect the problematic students, lacking personalized touches between the teacher and student.

Moreover, among 240 pre-service teachers, 158 respondents agreed, 52 were undecided with the statement, "*Explaining the concept with Different methods and techniques are not possible in the VI"* and 30 disagree with this statement. Incorporating the different pedagogical methods and techniques in the virtual mode is very much difficult. Even some of the face-to-face pedagogical methods not able to incorporate into the virtual model.

Table 3

Pedagogical problems encountered by the pre-service teachers during the Virtual Internship

Statements	Agree with the problem	Undecided with problem	Disagree with the problem
Issues are faced in planning a methodology for the virtual Internship	137 (57.1%)	86 (35.8%)	17 (7.1%)
Has a negative effect on student management in the virtual platform	119 (49.6%)	83 (34.6%)	38 (15.8%)
Real classroom teaching experience was not perceived during the Virtual Internship	168 (70%)	58 (24.2%)	14 (5.8%)
Virtual mode instruction is not at all possible for the entire discipline subject.	139 (57.9%)	72 (30%)	29 (12.1%)
Has limitation in developing teaching ability in individuals during Virtual Internship	153 (63.8%)	63 (26.3%)	24 (10%)
Not able to analyse the extra-curricular activities of students during the Virtual Internship	169 (70.4%)	55 (22.9%)	16 (6.7%)
The virtual Internship does not integrate theory with practical	149 58.3%)	73 (30.4%)	27 (11.3%)
Creates problems in the evaluation of the achievement of the learners in the Virtual Internship	144 (60%)	82 (34.2%)	14 (5.8%)
Case study record preparation / Counselling and guidance practices are very difficulty during the Virtual Internship	156 (64.6%)	67 (27.9%)	18 (7.5%)
Explaining the concept with Different methods and techniques are not possible in the Virtual Internship	158 (65.8%)	52 (21.7%)	30 (12.5%)

Technical Problems Encountered

The Table 4 presents the technical problems encountered by the pre-service teachers during the virtual Internship. According to the table, among 240 pre-service teachers, 114 respondents were agreed, 77 were undecided with the statement, "*Share the screen in the virtual conferencing tool such as google meet and zoom is also highly complicated"* and 49 disagree with this statement. The pre-service teachers are not provided with adequate training for effectively handling the virtual conferencing tools such as google meet, zoom etc. Even some of the pre-service teachers not having the proper devices to use these virtual conferencing tools. Even more respondents (159) were agreed, 56 were undecided with the statement, "*Not create a friendly atmosphere with students in the digital platform during the virtual internship"* and 25 disagree with this statement. The pre-service teacher not able to make the friendly virtual classroom atmosphere due to the lack of proficiency to handle the online tools. The pre-service teachers do not get the proper training because of the sudden practices of incorporating the online mode internship.

In terms of the statement **"***Video editing and video making may be the more complicated task in the VI"* a total of 139 respondents were agreed, 75 were undecided with the statement, while 26 were disagree. The main components of virtual Internship are video and audio content. However, the trainee teacher did not gain proper training on editing the video and preparing their video contents. Due to that, most of the trainers may feel more

difficulties editing and making the video content. Almost the same amount of respondents (131) agreed, 93 were undecided, and 16 disagreed with this statement "*A lot of technical problem arises during Virtual Internship"*. The main barriers of online teaching are technological issues such as bandwidth, configuration, cross platforms, electricity etc. Therefore, as pre-service teachers, they could not know how to resolve any technical glitches from their end or their student's end. It was also happened due to the inadequate training of ICT Skills.

Regarding the statement of **"***Finding or creating the quality-based audio/video / text materials are very much complicated during the VI",* among 240 pre-service teachers, 151 respondents agreed, 66 were undecided, and 23 disagreed with this statement. The pre-service teacher cannot find a way to search or create the audio or video or text materials online due to the inadequate training of ICT skills. The pre-service teachers are not aware of the OER or creative commons licenses. It is the main reasons they could not be able to search the proper and ethical contents from the net source. Additionally, 162 respondents were agreed, 65 were undecided and 13 disagree with this statement *"Not able to implement the various teaching methods / strategies/ techniques during the Virtual Internship"*. Even the teacher trainees, those in good in ICT skills, could not effectively implement the various teaching methods and techniques during the virtual Internship because they could not know how to blend the pedagogy and technology. Finally, 140 respondents were agreed with the statement of "*Problems to convert the average paper-based records work into digital-based recording system during the VI"*, while 75 were undecided and 25 disagree. The pre-service teacher cannot find the mechanism of converting the paper-based record work into the digital-based recording system due to the lack of a digital teaching training program.

Table 4

Technical problems encountered by the pre-service teachers during the virtual internship

Statements	Agree with the problem	Undecided with problem	Disagree with the problem
Share the screen in the virtual conferencing tool such as google meet and zoom is also highly complicated	114 (47.5%)	77 (32.1%)	49 (20.4%)
Not create a friendly atmosphere with students in the digital platform during the Virtual Internship.	159 (66.3%)	56 (23.3%)	25 (10.4%)
Video editing and video making may be the more complicated task in the Virtual Internship	139 (57.9%)	75 (31.3%)	26 (10.8%)
A lot of technical problem arises during Virtual Internship	131 (54.6%)	93 (38.8%)	16 (6.7%)
Finding or creating the quality-based audio/video / text materials are very much complicated during the Virtual Internship	151 (62.9%)	66 (27.5%)	23 (9.6%)
Not able to implement the various teaching methods / strategies/ techniques during the Virtual Internship	162 (67.5%)	65 (27.1%)	13 (5.4%)
Problems to convert the average paper-based records work into digital-based recording system during the Virtual Internship	140 (58.3%)	75 (31.3%)	25 (10.4%)

The Level of the Problems Encountered

The Table 5 presents the analysis of the sample in terms of Level of pre-service teachers' problems towards virtual Internship. As seen from the above table, 40 (16.7%) of the sample have low level, 160 (66.7%) of the sample have moderate level and 40(16.7%) of sample have a high level of perception towards virtual Internship.

Table 5

Level of the problem encountered by the pre-service teachers during the virtual Internship

Level of perception towards virtual Internship	No. of Pre-service teachers	Percentage (%)
Low	40	16.7
Moderate	160	66.7
High	40	16.7

CONCLUSIONS

This study attempted to find the problems of pre-service teachers towards virtual Internship. This study intended to examine how students felt while taking an internship online and to answer research questions on stress, concentration, difficulties, student convenience etc. in appearing online Internship. As educational systems are adopting new and innovative methods, it is important to know pre-service teachers' problems on virtual internship (Bilsland et al., 2020). It is crucial to know how they perceive the different features of virtual Internship (Kennedy et al., 2013). The traditional face-to-face interaction is gradually giving way to online, which can occur anywhere, anytime and at the comfort and pace of the people (Stapleton et al., 2017). These in turn bring about global integration and standardization in the educational processes. It can be concluded that necessary steps must be taken to solve concerned problems related to internship program. Relevant strategies must be prepared and student teachers must be educated to cope up with these problems.

COVID-19 makes a lot of impact on the teacher education program. Mainly in the internship training program. The pandemic has caused students to put their best foot forward to do virtual Internships. The educational implications of the study were:

1. Virtual Internship promote the globalization of education and exchange of knowledge resource
2. Virtual Internship provides more space for self-assessment, leading to immediate self-correction and improvement in teaching and learning.
3. Virtual Internship widens the reach of education by providing an opportunity for rural and remote area students to participate in education.
4. Through virtual Internship, the student can improve their competency in using a computer for other educational purposes.
5. Online internship projects will develop the value of cooperation, mutual acceptance, and sharing tendency in students.
6. A set of written guidelines about internship program from the concerned department should be given to the concerned student-teachers and principals of the concerned schools to act according to the rules and regulations as mention in the document and conduct activities in a structured way.

Based on the findings of this study, as well as the disparity of empirical studies related to the pre-service teacher's perception towards virtual Internship, the following are suggestions for research:

- Organizing the orientation program related to TPACK to student teachers.
- Conducting the digital micro-teaching practices for exploring the technological pedagogical skills to the student's teachers.
- Prepare the proper model for implanting the virtual internship program to the teacher education institutions.
- Adequate planning and strategies to design successful internship programme by teacher education institutions for eliminating obstacles.
- Prepare proper guidelines for monitoring the virtual internship programme.
- Implementation of remedial instruction to student teachers facing problems during Internship.
- Developing model digital school for strengthening the digital pedagogical skills to the trainee teachers.
- The principals of collaborative schools and student teachers should be briefed before the internship program so that all activities could be conducted smoothly.

REFERENCES

Bilsland, C., Nagy, H., & Smith, P. (2020). Virtual internships and work-integrated learning in hospitality and tourism in a post-COVID-19 world. *International Journal of Work-Integrated Learning, 21*(4), 425-437.

Cervetti, G., Damico, J., & Pearson, P. D. (2006). Multiple literacies, new literacies, and teacher education. *Theory into practice, 45*(4), 378-386.

Darling-Hammond, L. (2010). Teacher education and the American future. *Journal of teacher education, 61*(1-2), 35-47.

Jen, T., Morales, C., Greenwald, E., Montgomery, R., Loper, S., & Barber, J. (2020). Enacting ambitious engineering curriculum in science classrooms: examining teachers' implementation of Virtual Engineering Internships. *International Journal of Science Education, 42*(12), 2055-2074.

Keefe, E. S. (2020). Learning to practice digitally: Advancing pre-service teachers' preparation via virtual teaching and coaching. *Journal of Technology and Teacher Education, 28*(2), 223-232.

Kennedy, K., Cavanaugh, C., & Dawson, K. (2013). Pre-service teachers' experience in a virtual school. *American Journal of Distance Education, 27*(1), 56-67.

Pearson, J. (2003). Information and communications technologies and teacher education in Australia. *Technology, Pedagogy and Education, 12(*1), 39-58.

Stapleton, J., Tschida, C., & Cuthrell, K. (2017). Partnering principal and teacher candidates: Exploring a virtual coaching model in teacher education. *Journal of Technology and Teacher Education, 25*(4), 495-519.

Theelen, H., Van den Beemt, A., & den Brok, P. (2019). Using 360-degree videos in teacher education to improve pre-service teachers' professional interpersonal vision. *Journal of Computer Assisted Learning, 35*(5), 582-594.

Thiyagu, K., & Muthuchamy, I. (2012). Effectiveness of e-content in learning mathematics among secondary teacher trainees. *Research and Reflection of Education, 10*(04), 9-12.

