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Practicum Experiences of Prospective Teachers: The Inevitable Adaptation to Teaching Online

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Abstract

Prospective teachers (students) in the Bachelor of Education (BEd.) programme at the University of Trinidad and Tobago, Year Three, would have been required to conduct 'field' practicum at various schools throughout the country, under normal circumstances. However, due to the pandemic and the closure of all schools, only online classes were conducted and adaptations had to be made to acclimatize to the situation. Prospective teachers were required to engage in teaching to their peers online, together with micro-teaching which complemented the process. Instructors as well as classmates and presenters engaged in critique, rigorous analysis, reflection and feedback. The sample included forty (40) full-time students, generally between the ages of 18 to 25, who had no previous classroom teaching experiences. A mixed-method approach was deemed as suitable to investigate how prospective teachers adapted to online teaching and learning to implement the content of the prescribed curriculum. Online questionnaires, focus group interviews, via Zoom and reflective writings were used to collect data. Both qualitative and quantitative methods were integrated for data analyses. The findings revealed that most prospective teachers were very proficient with the use of the Zoom platform and were very creative in their approaches for teaching using videos, online games, power point presentations and voice-overs. However, there were instances of major problems involving internet connectivity and instability, particularly for those who live in remote villages. In addition, some students preferred online-teaching, while others indicated a preference for a blended approach. The results have serious connotations for the health and well-being of students. Those who are constrained by a lack of internet feel disadvantaged, vulnerable and marginalized.

Keywords: prospective teachers; online teaching; mixed-method.

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1. Introduction

Due to the Covid19 pandemic, education in general and more particularly teacher education, had to be transformed to meet the new demands of an uncertain environment. Teaching and learning triggered into virtual platforms, synchronously and asynchronously in many parts of the world. The University of Trinidad and Tobago (UTT), which offers a BEd. programme for prospective teachers to equip them with the knowledge, proficiency and dispositions needed to become excellent teachers in the local education system, had to make significant adjustments. Prior to Covid19, prospective teachers were assigned to 'field' teaching at schools and mentored individually by cooperating teachers and practicum advisors from the university for a period of two weeks. In the current milieu, the former practical component or 'field' teaching had to be adjusted to accommodate safe practices for both teachers and students, hence, the shift to online teaching. Since all schools were officially closed, the 'field' component was reconfigured into microteaching sessions in which the prospective teachers taught their peers through an enabling digital environment. This study seeks to unravel the experiences of the year three cohort of prospective teachers in teaching online.

1.1. Purpose and significance of the study

This research sought to unearth the experiences of the year three cohort of prospective teachers with respect to teaching online. It provides valuable data to the university in terms of modification of its curricula to suit the new genre of teaching and learning at the primary school level. It sheds light on virtual teaching to other teacher education institutions, both locally and internationally. It also provides reliable research for the Ministry of Education, based on the thrust to transform the education system via a national consultation process. A key component of the transformation, as outlined in the policy document, is blended learning [1] (Ministry of Education, 2020). The study is a source of research information that may inform policy decisions and contribute to the literature both in the local and international contexts.

2. Literature review

2.1. Adjustments to BEd. programme: Nature of practicum

The Bachelor of Education (BEd) programme at the University of Trinidad and Tobago includes a field teaching component at selected schools during the field teaching period. With the closure of schools by the government, and the move towards online teaching, the practicum was restructured to a model of microteaching in which prospective teachers' peers became their learners. At a university in Turkey, the authors [2] Ersin, Atay, & Mede (2020) revealed that the instructors became 'e-mentors' who engaged prospective teachers in what they referred to as 'e-practicum' (p. 113). After the experience, prospective teachers were required to write reflections of their 'e-teaching' experience. While many of them had positive experiences, several felt that they were 'left behind' because while they were accustomed to online learning. They felt they lacked the skills which were necessary for online teaching. Before the start of the COVID19 pandemic [14] Scott (2015) envisaged a transformation of formal education in order to address global challenges that could become crucial. Such transformation would involve changing regular pedagogical practices, a perspective endorsed by [5] Beetham &

Sharpe (2007). The author [14] Scott (2015) also indicates that shifting to a new pedagogy would require an evaluation of current skills and the acquisition of a cadre of new skills. This view is shared by [6] Cloete (2017) that the attainment of new skills was fundamental for online teaching and learning. While educators agree with the views of [14, 6] Scott (2015) and Cloete (2017), the actual teaching of the requisite skills has not been clearly identified and seem to be disregarded or taken for granted. However, [7] Wang (2013) reports on the positive impact of video conferencing as well as YouTube videos as a means of acquiring these skills proactively and independently. A study conducted by [3] Ramsook & Thomas (2019) in Trinidad and Tobago revealed that many prospective teachers were quite satisfied with online teaching. However, according to the study, there were many factors to be addressed if online teaching were to be considered a viable alternative. While many participants were quite satisfied with online teaching, several prospective teachers were concerned about the development of the affective aspect of teaching and more especially, the lack of social skills.

2.1.1. Pandemic spinoffs: Shift towards online teaching and official closure of schools

Adapting to online teaching for the prospective teachers included doing their teaching practice online as well as receiving online mentoring. With regard to online mentoring, a study conducted by [4] Spanorriga, Tsiotakis, & Jimoyiannis (2018) revealed that online mentoring has made a significant impact on the professional development of teachers. Their findings have contributed significantly to the design of online mentoring programmes. Their study has also provided important information regarding the variables which are fundamental to successful interactions during online mentoring. Similar to the situation in Turkey and in other parts of the world, the COVID 19 pandemic has caused major interruptions to local education programmes.

3. Research questions

1. How have prospective teachers adapted to online teaching to implement the curriculum prescribed by the Ministry of Education?
2. What methods or approaches did prospective teachers adopt to teach content?
3. What were the experiences of prospective teachers with online teaching?

4. Materials and methods

A mixed method approach as shown in Fig. 1. was deemed most appropriate for this research. Integrating both quantitative and qualitative methodologies provides a pathway for complementarity [8) (Creswell, 2012), multiple validities legitimation]9] (Johnson, Onwuegbuzie & Turner, 2007) and corroboration of breadth and depth of understanding. It allows for the construction and reconstruction of meaning and enables the derivation of sound information. In this study, both quantitative and qualitative data were collated, triangulated and analysed and the results were compared, integrated and interpreted.

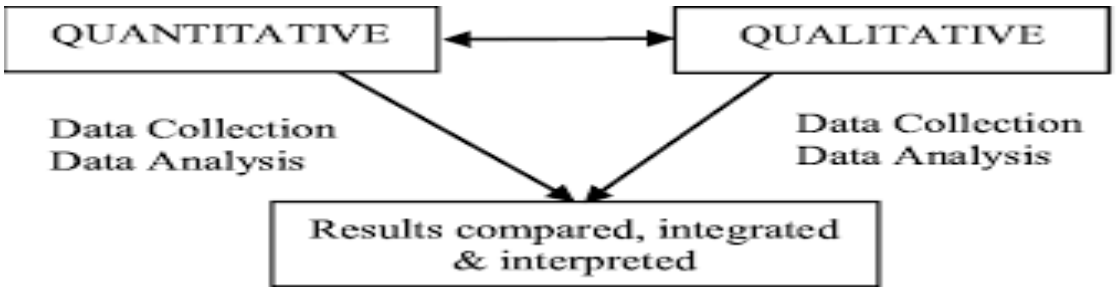

Figure 1: A mixed methods approach

Source: https://www.google.com/url?sa=i&url=https%3A%2F%2Fwww.researchgate.net

4.1. Participants

Participants were chosen through purposive sampling. Prospective teachers belonged to the Year Three cohort of students at the University of Trinidad and Tobago. Students belonged to two different classes, one of which had nineteen (19) students, and twenty-one (21) in the other, making a total of forty (40). The prospective teachers, who were full-time, were between 18-25 years. Since more females are registered for the course and programme, there was a significant lower number of males, when compared with females.

4.1.2. Data collection

Data were collected through online questionnaires, focus group interviews via Zoom and reflective writings that students posted on Canvas. A mixed method approach was utilized for a more robust description of the experiences of prospective teachers. The approach facilitates a rich, in-depth understanding of the issues [9, 10] (Johnson, Onwuegbuzie & Turner, 2007; Cohen, Manion, & Morrison, 2007) and add to the authenticity of the study. Students responded to questionnaires, which consisted of both open and closed ended questions that were posted online. Semi-structured interviews were conducted via Zoom with focus groups of five persons, as well as individual members who contributed voluntarily. Zoom proved to be a non-threatening environment where students voiced their experiences, feelings and the emotions. Most respondents participated in the focus group interview sessions which were conducted via Zoom and those who were experiencing connectivity problems, sent their responses via WhatsApp. It must be noted that there is limited research on the viability of Zoom as a medium for collecting data, but participants were satisfied that the method was appropriate. According to [11] Archibal, Ambagtshee, Casey, and Lawles (2019), "Zoom may serve as a highly suitable platform for collecting qualitative interview data when compared to other commonly used VoIP technologies (p. 7). Prospective teachers wrote personal reflections which they posted on Canvas, or sent emails or WhatsApp messages. Reflective writings served to validate and add to the credibility of the data [10] (Cohen, Manion, & Morrison, 2007).

4.1.3. Data analysis

Interviews, which were audio recorded through the Zoom mechanism after due consultation and approval by

participants, were transcribed verbatim into word documents. Descriptive statistics were used to summarize the quantitative data, for instance to determine percentages. The qualitative data complement the quantitative to confirm as well as provide a more profound understanding of the findings [12] (Miles, Huberman & Saldana (2014). The data was read repeatedly to glean in-depth meaning and interpretations. Major common ideas emanated, after coding, constructing and reconstructing categories, reducing redundancies and searching for commonalities, as advocated by [8] Creswell (2012).

5. Limitations of the study

This study focuses on a particular institution with a specific group of students in a developing country. In addition, the research is based specifically on teacher education. Also, the cultural context in which the study is situated is also unique and as a result, the findings many not necessarily be easily generalizable.

6. Results and discussion

Online technologies have eliminated the barriers of time, cost and locality. Content, activities and experiences have become easily available and accessible via different platforms. The data revealed that prospective teachers adapted to online teaching by utilizing different virtual platforms for the two lessons they were required to teach. The lessons, which were recorded, were critiqued by peers and instructor. Zoom emerged as the predominant forum for the teaching of lessons online. Twenty-eight (28) or seventy percent (70%) of the prospective teachers utilized Zoom as a mechanism for teaching one of their lessons, as reflected in Table 1 below. It is perhaps the preferred platform as UTT provides free access to the student population. In addition, most lecturers use it as the medium for teaching and learning, so prospective teachers are quite familiar with many of its features. However, many prospective teachers indicated that they had major problems using the platform as ‘teachers’ in the online classroom setting. Some lamented the lack of optimum performance in their online teaching because they did not possess the necessary skills. They found that the usage, roles, responsibilities and experiences, from the perspective of a ‘teacher’, were significantly different from that of a student. Some experienced frustrations and emotional distress and complained bitterly, as they encountered multiple problems. Many found it difficult to multitask, for example, using break out rooms, annotations and whiteboards. One student said that she cried ‘all night’ because she did not know what to do as a ‘teacher’ and declared that she did not have the requisite skills in technology. Another said that assuming the role of ‘teacher’ in the online context was overwhelming and others indicated that they had connectivity issues which added to their distress. The implication is that prospective teachers need not only pedagogical knowledge but technological skills and support to assist them to function as ‘teachers’ in the online setting. It must be noted that technical support is not readily available during classes. Practical workshops are suggested so that prospective teachers may be equipped with the technical know-how to cope with the ‘new normal’ of remote teaching. Pre-assessment of competencies upon entry to the university, as well as an orientation that focuses on the use of technology may be useful to improve their proficiency. Other factors such as nervousness, associated with teaching for the first time as a ‘teacher’, with little or no support from family friends or peers and a non-conducive environment at home, impacted on the online experience. Increased practice and improved mentoring by instructors, may serve to build the confidence and minimize fears, concerns and trepidations of prospective

teachers. Also, collaboration with their peers and peer tutoring may be beneficial for the development of competencies. Table 1 shows that out of a total of 40 prospective teachers, 5 or 12.5% utilized Google Classroom as they found it more convenient. Some prospective teachers disclosed that they acquired a certain degree of familiarity and expertise with Google Classroom by assisting siblings in their respective families with homework. As demonstrated in Table 1 below, a minimal number of prospective teachers used WhatsApp (3 or 7.5%), Microsoft Teams (2 or 5%), Skype (1 or 2.5%) and Google Meet (1 or 2.5%). Zoom was the preferred choice as they found that the platform was easily available, timely, cost effective and convenient. However unstable internet connectivity proved to be a major problem, particularly for those who live in distant rural communities. In addition, some participants used WhatsApp and emails to send relevant pre-information to class members before the actual teaching session. The medium proved to be important as the materials facilitated pre-preparation for delivery of content.

Table 1: Learning platforms used

Remote Learning Platforms	No of Prospective Teachers (40)	Percentage 100%
Zoom	28	70
Google Classroom	5	12.5
WhatsApp/ Emails	3	7.5
Microsoft Teams	2	5
Skype	1	2.5
Google Meet	1	2.5

The central premise of a mixed method approach is that the use of quantitative and qualitative data when combined provides a better understanding of research problems [13, 9] (Creswell & Plano Clark, 2007; Johnson, Onwuegbuzie & Turner (2007)). The qualitative data in this study, which are based on the personal experiences of prospective teachers, serve to complement the quantitative statistical data. Some verbatim statements, from individuals and focus groups participants, regarding the platforms utilized by prospective teachers are outlined below.

1. On these platforms we were able to conduct discussions with our students. We provided our 'students' with an online classroom setting where they were able to answer and ask questions and also voice their opinions and concerns.
2. I used Google Classroom - After class I used it for uploading and submitting of assignments and projects and for clarification of instructions.
3. As a prospective teacher, I adapted to online teaching and learning by becoming proficient with using online libraries and platforms namely Zoom, Google Classroom and emails. Sometimes I used WhatsApp depending on the students.

Prospective teachers also adopted multiple methods and approaches to teach content and incorporated varied

online activities to optimize participation or cater for different learning styles. They engaged in both synchronous and asynchronous learning to facilitate all learners and make lessons intriguing. They included follow-up activities, assignments and readings such as pdf files and links to websites to allow for flexibility and self-paced learning. They also received support from their more knowledgeable colleagues to access games and other exercises. As demonstrated in Table 2 below, all prospective teachers (40 or 100%) taught online using games, YouTube videos, share screen with power points, break out rooms and white boards with annotations. More than fifty percent of them used links to websites as well as graphics, pictures, emojis and concept maps while 18% utilized virtual field trips, 29% Quizlets and 13% pdf files.

Table 2: Approaches and activities used

Approaches and Activities	**No of Participants (40)**	**Participants Out of 100%**
Online games	40	100
YouTube Videos	40	100
Power points	40	100
Graphics, still pictures, emojis, concept maps	32	80
Pdf files	13	32.5
Quizlet	29	72.5
Virtual field trips	18	45
Links to Websites	24	60
Break out rooms for finding solutions to real-world problems and experiments	40	100
Share screen - use of white boards with annotations	40	100

Some prospective teachers reported that they shared pre-planned information, such as links, copies of handouts and instructions for activities to their peers via WhatsApp messages and emails. This allowed for feedback and practice. One person explained that she had to increase the level of challenge for the games selected, based on feedback. Prospective teachers found that games and emojis provide exciting emotional stimuli for learning content. [14] Scott (2015) mentioned the value of rethinking new pedagogies for the twenty first century learner. The activities enabled participants to engage in problem solving in a dynamic way. For instance, one participant revealed that during a game, one group came up with solutions she had not anticipated. Prospective teachers felt that virtual field trips allowed learners to explore authentic artifacts, landforms and historical places consistent with the objectives of lessons, which facilitated interactive group discussion, brainstorming, problem solving and critical thinking. Although a multiplicity of activities was incorporated in lessons taught, most participants complained that the process of planning was very time-consuming. However, it must be noted that the learning objectives of lessons to be achieved remain the same and preparation for face-to face teaching is comparable in terms of time. In addition, technology systems allow for speedy creation of quizzes, with automated marking. Also support and collaboration with colleagues and practicum advisors were always readily available via

WhatsApp messages and emails. However, prospective teachers felt that assistance through face to face interactions in a classroom setting, during breaks, before and after class are significantly different and irreplaceable. They reported that some of the challenges they faced included internet connectivity as well as technical problems such as no sound, the learners' ability to focus on the computer screen for a long time, the distraction of social media and pop-up messages and the inability to utilize some games because of the high cost involved. Therefore, it is imperative for prospective teachers to keep their online lessons on task, motivating and interactive so that learners remain focused. Overall, however, prospective teachers demonstrated positive emotions and were happy for the experience to teach online. They intimated that they built their competencies and confidence through what they considered to be invaluable experiences. They indicated that the new online experiences were facilitated by instructors but more importantly by their peers who were readily available. Peer tutoring and independent study through online YouTube videos contributed significantly to the process. Direct quotes from prospective teachers are shown below.

1. I used share screen for power point presentations, videos and pictures. Additionally, virtual field trips of relevant places, were another way in which I adapted to accommodate online teaching. Using websites of places to teach . . . gave students an insight without physically visiting them.
2. My 'Standard Four' students enjoyed summarizing information with emojis. They found it exciting and were asking for more activities.

4. I was also able to share relevant pdf documents with my students and among or above all was able to administer tests in the form of quizzes, using Quizlet, to evaluate their progress on the lessons taught.
5. We ensured that we used YouTube videos based on the topic being taught. After viewing the video, we raised questions allowing the students to think critically. Also some of these videos tended to simplify the topic for the students.
6. In my Zoom class I made use of the whiteboard when I shared screen so that students engaged in the lesson. When asked to write making use of the pen on the screen, I was able to determine how a task was completed, and thus understand whether each student was on par with what was being taught at that time. They looked at pictures, drew concept maps and used 'paint' to create their own drawings.
7. The use of games incorporated in lessons has proven to be very motivating to students. In my experience, simple games such as question and answers/ matching games/ guessing games which can be created online on systems such as jam board and quizlets, motivate students to learn whilst having fun. They don't see learning as writing notes all of the time, but as exciting because they are engaging in constructive play. For example, a matching game was utilized in a Social Studies lesson I taught for Infants 2 where students were able to match different road signs to their meanings.
8. Incorporating videos and short movie clips in lessons broaden the opportunity for students to learn and explore content. Using simulations brings to life a whole cycle of events that would normally take weeks to complete. For example, videos on the life cycle of a butterfly or plant can be seen to fully develop a student's concept of how these things happen. Such real –life occurrences bring about concept formation in students while relaxing and enjoying a video. It is not content or work overload and students are more interested and engaged. Videos and songs can be utilized in teaching all subject areas which make learning fun for students.

9. Test Generators can be used to carry out a lesson or help make the lesson more engaging and interactive for students. In my experience, simply using a puzzle generator to suit my lesson allowed students to become engrossed in the lesson which ultimately allowed me to use those same words for their spelling lesson. Test Generator also allows me to create worksheets for the students for their specific lesson and keep a record of their grades and progress.

7. Summary

In summary, prospective teachers adapted to online teaching by using different platforms such as Google Classroom, with Zoom being the preferred forum. They utilized many different approaches and activities, for example, online games, activities and virtual trips. Some participants were constrained by issues which included the lack of technical expertise, unstable internet connectivity and other problems such as lack of audio or sub-standard audio quality. Most prospective teachers revealed that they had predominantly positive experiences which helped them build their confidence and competencies. They indicated that they will definitely recommend online teaching, not only for all prospective teachers, but for all educators. However, they strongly recommend ongoing workshops for prospective teachers so that they may build proficiency, skills and technical know-how, as well as alleviate frustration and distress.

8. Recommendations

All prospective teachers need to develop a high degree of proficiency with remote teaching. It is necessary for them to be aware of and be able to use multiple platforms, which are consistently evolving or being modified. Also many them need assistance on how to use different online games and activities, as not everyone is familiar with the range of approaches used. They require mentoring in terms of making their classes motivating by adopting student centred approaches. Many prospective teachers indicated that there is a need for the University to conduct practical workshops, designed to assist them with online teaching, as the majority of them learnt through trial and error, YouTube videos and self-learning. In addition, technical support should be available during classes so that interventions can be made in a timely manner.

9. Conclusion

Generally prospective teachers viewed teaching online as a rewarding experience. They prefer Zoom because of familiarity with the features of screen share and break out rooms, which they consider user friendly. However, some prospective teachers experienced frustration and distress because of a lack of proficiency and connectivity problems. Others complained that their home environment was not conducive and as a result, were reluctant to put on their cameras. However, the experiences for prospective teachers proved to be fulfilling as they built their confidence. They were able to develop and utilize online activities that made their lessons student-centred. Peer tutoring was a significant factor that contributed to the acquisition of skills in the use of platforms and multiple approaches. In the absence of the availability of immediate skills, there was mentoring by peers. Some prospective teachers were also proactive by engaging in independent research. The new normal in the realm of teaching and learning seems to be one that is individualistic and personalized learning with a virtual teacher as

mentor. Currently, activities such as visual perception, speech recognition and language translation can be conducted by computers. Previously, it was felt that human intelligence was needed to accomplish these functions. But the level of learners' cognition, needs, as well as their ability to solve problems and build mastery can now be determined by intelligent systems networks that have been developed. For the digital natives [15] (Prensky, 2001), remote instruction may be the impetus for learning in an environment that is considered inspiring and stimulating, so teachers need to discover which approaches promote effective learning. In the future, however, teaching and learning may be embedded in another realm, that is, artificial intelligence, which is designed to bring about learning and problem solving through imitation of human intelligence in machines such as computers. Learning by this method seems to be the way the world is now transitioning, so the uncertainty in education continues to unfold, with increasing paradigm shifts.

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