ORIGINAL ARTICLE

Teaching Practicum: A Study Exploring Student-Teachers' Experiences during the Pandemic

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Consent forms were distributed.

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No conflict of interest is present in the conduction or the reporting of this study.

ABSTRACT

Teaching practice is an essential component of teacher training programmes. It enables student-teachers (both pre-service and in-service teachers) to apply theoretical knowledge in education into real practices in authentic contexts. In particular, novices view practicum as a unique opportunity to experience classroom teaching and learning. Mentors assigned by schools and university supervisors play an important role in facilitating student-teachers' teaching and learning during practicum. This study investigates two student-teachers' practicum experience at a time when the spread of the COVID-19 pandemic was influencing school operation. The changed mode of practicum was studied and post-practicum interviews conducted to gather information regarding the experience and supervision of the school practicum and the challenges faced during the pandemic. Transcripts of the semi-structured interviews were analysed and triangulated, using these documents and video-recorded lessons. The findings of the study reveal importance of individualised teaching practice components comprising means of observation and communication between student-teachers and supervisors during the pandemic.

Keywords: **Practicum**, online learning, teacher training, education during

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INTRODUCTION

One of the purposes of a teacher training programme is to nurture effective teaching practice (George, et al., 2000). In the process of preparing to be future teachers, student-teachers are found to be lacking support in socialization process (Farrell, 2001) and that teaching and learning processes are dynamic and overarching, involving contributions from students, teachers, and educators. School practicum enables student-teachers to understand the socio-cultural, political and economic factors underpinning education in a context of firsthand experience (Tuli, & File, 2009). Student-teachers regard teaching practice as a culminating experience, successfully connecting cooperating teachers (also called mentor teachers or mentors) with each other, generating positive impacts for the student-teachers (Funk, & Hoffman, 1982). Some stakeholders question the credibility of teaching practice assessment and grading among various school-based contexts (Monyatsi, 2012). Therefore, it is essential to examine concrete experience during school practicum. School practicum offers productive ways of assessing how individuals, i.e., student-teachers, record, design tasks, implement lessons and reflect on teaching and learning taking place in concrete school settings. Although school visits, class observations, and the evaluation of portfolios allow university supervisors to investigate the performance of student-teachers during the teaching practice, with the intention of identifying some "good student-teachers", these tasks do not necessarily help us to understand how and why different student-teachers reflect in different ways.

This paper reports on an exploratory study of the experiences of student-teachers during spread of COVID-19. This study investigated the practical experiences of two student-teachers in school practicum after school suspension. Lessons were normally implemented as scheduled where student-teachers were assigned to carry out the practicum in specified schools. Special arrangements requiring all students and staff to wear face masks were made when they were in schools. The communication practice for the class observations conducted by university supervisors was moved online, e.g., through emails, phone calls and virtual meetings, during the pandemic. Furthermore, the challenges faced by them during the pandemic were examined. Specifically, two research questions were raised in the study:

1. How did student-teachers experience the practicum?

2. What challenges did student-teachers face in the practicum during the pandemic?

LITERATURE REVIEW

Constructivist Models of Learning

Dennick reveals that "educational theories contain a spectrum of frameworks ranging from empirical behaviorist theories through developmental and constructivist psychology and humanistic interpersonal frameworks to the unempirical and epistemologically relative end of the social sciences" (p. 38). Constructivist theories are created and used to explain learning and teaching phenomenon in classroom settings, consisting of social and cultural factors. The wide constructivist thoughts enable educator to scientifically construct principles guiding teachers' teaching and students' learning with empirical and epistemological foundations. Wenger (1998) relates constructivist models to teacher education, in particular reflective practice and communities of practice frameworks for professional development which are further put forward to teacher learning (Graven, 2003). Teacher training is one of the implications in the development of the constructivist wheel.

School Practicum

Lawson et al. (2015) review educational research concerning school practicum and describe trends in school practicum with concrete definitions of stakeholders in teaching practice. Teaching practice, also known as school practicum or internship, is traditionally embedded into teacher training programmes collaboratively agreed by schools and higher education institutions, in which the former provides teaching opportunities for pre-service student-teachers from institutes to gain experience of the practicalities of teaching in schools. Although some in-service teachers gain opportunities to conduct teaching practice in schools, student-teachers are identified as novices in education, seeking in particular to develop pedagogical skills. Teacher educators in higher education, also known as university supervisors, play crucial roles in training student-teachers, who might be their students in courses provided by the institutes. Supervisors have to prepare student-teachers to recognise and cope with the complexity of teaching in schools, guiding them to attempt to apply educational theories covered in university courses into practice in school classrooms. One role of supervisors is to foster student-teachers to bridge the gap between knowledge and skills. Mentoring is common in school practicum, in which mentors, also known as onsite supervisors, are usually experienced teachers in the schools (Stanulis & Ames, 2009). Mentors are employed to support, supervise, peer-teach with, coach, guide and counsel the assigned student-teachers (Shaw, 1992). The roles of supervisors and mentors are mutually supporting student-teachers to commence their teaching lives.

Dennick's Twelve Tips

Grounded in constructivist theories, Dennick (2012) proposes twelve tips for incorporating educational theory into teaching practice. He provides some guidelines for student-teachers to be significantly aware of students' learning process throughout the lessons from certain aspects.

1) Ascertain and activate prior knowledge: it is essential for student-teachers to be aware of the background knowledge of their students in order to assure their' understanding. Reviewing prior knowledge allows student-teachers to construct corresponding teaching tasks; 2) Build on existing knowledge and challenge misconceptions: acquisition of new knowledge is mediated by existing knowledge in which the new concepts are grounded. Once the new knowledge is introduced, student-teachers are seeking cognitive equilibrium for their students to accommodate the knowledge (Dewey, 1938); 3) Facilitate the social construction of meanings using group work and stress the context and the 'situation': student-teachers are encouraged to design group work to facilitate their students' collaboration and cooperation. This kind of facilitation is not only a conceptual understanding of student-teachers, but allows them to implement it in authentic learning activities (Lave & Wenger, 1991); 4) Use active learning techniques: the importance of group work, social interaction and discussion is in enabling students to learn actively in formal or didactic ways; 5) Encourage learners to think about how they learn and give learners responsibility for their learning; one classic implementation of provoking students to reflect on their learning is experiential learning cycle purposed by Kolb (1984). It focuses on stages of experiencing, reflecting, conceptualising and applying the knowledge or skills in a cyclical way. The teacher acts as a facilitator to simulate students to experience and reflect critically. The ideas further evolve to encourage students to experience and discover knowledge, instead of feeding them the knowledge; 6) Ensure learners get the experiences they need: the educational structures, such as authentic and challenging experience generating problems, questions, and possibly cognitive inspiration, should be considered. In addition, teachers should make sure that individuals immerse in the experience; 7) Reflection is helped by log-books, portfolios and feedback: knowledge is

not automatically transformed from experience. Critical reflection is conducted with aids such as log-books and portfolios, gathering important pieces of information for conceptualisation. Recording aids play a role in helping learners to avoid becoming 'lost' in the learning environment. This is applicable to students in schools as well as student-teachers in school practicum; 8) Build up mental models, practical skills and attitudes: student-teachers should assist their students to map the experiences onto actual knowledge in curriculums. This helps students to internalise the knowledge from the information present in the external world; 9) Allow learners to engage in hypothesis testing and action planning: novice teachers are so eager to let their students 'know' something that a direct teaching approach is commonly adopted. Alternatively, student-teachers have to know how to provide students opportunities to create plans, to test out ideas and hypotheses in practical environment; 10) Respect learners and acknowledge who they are and where they are coming from; student-teachers have to be acknowledging, respectful and utilise their students' background information as resource. This encourages the students to take responsibility for their own learning if their personality is respected.; 11) Ensure physical psychological and emotional needs are taken care of: students are motivated to learn if their physiological and psychological needs have been satisfied. Self-esteem, self-efficacy and self-actualisation should be considered by giving positive feedback and reinforcement and praise; 12) Teaching and learning is a relationship: student-teachers play a pastoral role in dealing with students' problem. They should learn and call students' names, take shared interests as personal and promote individuals' development.

The Dennick's twelve tips depict genres that student-teachers are expected to experience during the practicum. On the one hand, it is a teaching process that student-teachers anticipatorily follow in order to benefit their students; on the other, it could be regarded as learning tips, and that student-teachers should be aware of issues in the school practicum beneficial to their own learning. This study mainly focused on the analysis of the latter aspect, investigating practicum experienced by student-teachers with analysis of Dennick's tips.

Some of the tips provide unique frameworks, helping student-teachers to be aware of aspects during school practicum. However, some are related to certain specific considerations which could be combined. Thus, I keep utilising the ideas of the twelve tips as analytic framework in the study, and probe critical genres based on the responses from the student-teachers as the participants.

METHOD

The qualitative research design of the study involves the research interview method (Hobson & Townsend, 2010). Post-practicum interviews with student-teachers, comprised of semi-structured interviews, were conducted to understand the meaning of interviewees (Kvale, 1996). Semi-structured interviews not only provide opportunities for interviewees to depict importance of issues concerned, but also allow researchers to achieve breadth and depth in data (Hobson & Townsend, 2010). With the interview questions designed according to the issues raised by Dennick (2012), open-ended questions were employed to reserve room for the participants to freely express insights of the experiences. The role of the researcher in the research interview is to lead the discussion, probing the interviewees' ideas and thoughts toward the interview agenda. Particularly, the one-to-one interviews cultivate rich content of speech generated by interviewee-participants.

Two student-teachers were invited to participate into the research. They were separately interviewed, with about an hour-long interview for each of them. The interviews were audio-recorded and transcribed for analysis. Moreover, participants submitted sets of portfolios consisting of records of reflection, descriptions of schools and students in the

practicum for triangulation purposes. Bogdan and Biklen (2006) reveal that methodological triangulation includes using more than a single method to gather data, such as observations and documentations. The transcriptions of the interviews with the student-teachers were compared to provide grounded support to claims, with evidence, for demystifying the concrete experiences gained by the participants corresponding to the lens of the literature.

The study was conducted at a time when the school practicum was carried out during the COVID-19 pandemic. Schools were suspended for a month when students from primary and secondary schools underwent distance learning. The student-teachers were allowed to conduct their teaching practice after resumption of schools. However, all students, teachers and staff in schools had to wear face masks during school time. Social distance was kept, meaning that some pair and group works were not encouraged. Mentors (onsite supervisors) supervised student-teachers in schools, where class observation and evaluation conducted by university supervisors were communicated online. The lessons conducted by student-teachers were video-taped and sent to university supervisors for evaluation. Supervisor and student-teachers communicated through emails, phone calls and virtual meetings.

Two participants were purposively selected from a pool of student-teachers pursuing a postgraduate diploma in education and who had completed school practicum. The selected student-teachers submitted portfolios with rich contents demonstrating significant reflection during the practicum. The two participants are depicted using the pseudonyms of Alice and Benny.

In this study, with data collected from the interviews with the student-teachers together with the support of relevant information gathered from the portfolios, I created codes for categorising key themes that emerged in the school practicum (see Table 1; Dennick, 2012). In addition, the transcriptions were analysed with open and axial coding (Strauss & Corbin, 2008), which allowed innovative themes found in the study to emerge.

Table 1. Codes for categorising key themes in school practicum

Code	Description
Pk	Ascertain and activate prior knowledge
Bk	Build on existing knowledge and challenge
Sc	Facilitate social construction of meanings using group work
Al	Use active learning techniques
Ex	Provide concrete experiential learning experience
Ex-s	Ensure learners get the experiences they need (students-based)
Ra	Reflect learning process with aids, e.g., log-books, portfolios and feedback
Bm	Build up mental models, practical skills and attitudes
Ht	Engage learners to conduct hypothesis testing and action planning
Rl	Respect and acknowledge learners
Pn	Ensure physical, psychological and emotional needs of learners
Rp	Beware of teaching and learning relationship

The codes were used to analyse the transcripts of the post-practicum interviews, to describe the experiences of the participants according the ideas provoked by the literature.

RESULTS

The codes used in the study were derived from Dennick's twelve tips depicting important aspects student-teachers should beware of, particularly for their students' learning. Ultimately, the findings show that some of the codes were

applicable to the learning experience of the student-teachers during the school practicum, accompanied with difficulties faced during the pandemic.

Reflection with Aids

The participants revealed that they did not use logbooks to record their teaching and learning in the practicum due to a lack of awareness of using it and limited time to jot down notes. Completion of daily teaching was regarded as an important duty for school teachers, however, written form of the day-to-day experience for novice teachers was not practically adopted in the practicum.

"During the practicum, I wasn't aware of this [jotting down notes]. I should be aware of this in my actual hands-on work" [Alice, 3:30]

"In some moments, I was thinking of using this [logbooks], however, I was stressed during the practicum, and I was very busy. I didn't have time to do this. Plus, there was not enough time." [Alice, 6:15]

"I like others to verbally tell me which parts I can improve, instead of self-evaluation, as writing down the problems doesn't motivate me to improve." [Alice, 9:30]

"Actually I did self-evaluation every school day during the practicum. Everything faced in each day is unique. Without a clear guideline for evaluation, like the university [practicum course] given to us, I reflected in my own mind to seek which parts in which I did no good in the lessons. [Benny, 1:30]

"I didn't use any recording aid. I like to think and reflect mentally. I think my self-evaluation hasn't been done in a holistic way. My mindset should be more broad." [Benny, 18:40]

However, both agreed that trying to use logbooks to record the practicum trajectories might help them to reflect on their teaching. Although the student-teachers did not use a logbook in their practicum, the value of using it, to continuously record their teaching and learning processes, was recognised. For the use of a portfolio template as a reflection aid, student-teachers viewed this as a summative assessment, concluding the holistic performance of the student-teachers in the practicum.

"If I write down something, no matter how good or bad, when I teach next time, I'll be aware of the issues." [Alice, 8:00]

"I think I did not do well with the evaluation as a kind of formative assessment. If I do it at early stage [of the practicum], I'll know more about which parts I should improve. I think I could do it better." [Benny, 7:30]

"Um, as a new teacher, I think jotting down some issues may help me to teach better in long run...because written form can be revisited later. But if we just mentally reflect, we may forget after few weeks. I think we can jot down what is good or bad that a teacher has done. And also, we can write down the students' performance, for example, test results, worksheets." [Benny, 19:20]

Mentor's Involvement

Interestingly, one participant was revealed to have closely follow her mentor's (onsite supervisor) instruction in order to improve her teaching strategies and understanding of her students. However, another participant expressed his concern that copying the mentor's teaching style eliminated his own character.

"At the first week of the practicum, I only observed mentor's lessons. After the week, the mentor asked me to conduct lessons by myself. Although I was not psychologically ready to teach, I wanted to have a try. From the second week, I was asked to conduct lessons every week which meant I was busy preparing for the lessons with lesson plans, materials, discussing with teachers regarding the appropriateness of the activities designed." [Alice, 6:50]

"For me, I don't look at the documents [portfolio template] uploaded in the system at the beginning. I just listen to the mentor's advice during the practicum. So that I'd know which parts I did wrong." [Alice, 5:15]

"I followed my onsite supervisor and attended all lessons conducted by her, who briefly talked to me after each lesson. She gave me a lot of suggestions. And then I would reflect on her comments. As I had improved in the next lessons according to her comments, she appreciated my improvement. For example, she told me that I was not as stressed as my previous trials." [Alice, 10:30]

"Sometimes, the onsite supervisor gave me some feedback. However, at the beginning of the practicum, if I had too much feedback from the supervisor, my teaching philosophy would be changed to others' rationale." [Benny, 1:55]

The student-teachers had different expectations toward the involvement of the mentors. Alice followed her mentor closely and had the intention of learning by complying with feedback from the mentor. Benny was more critical in that he wanted to keep his own character and take his mentor's suggestions as a point of reference. He had the intention to keep limited feedback from his mentor, with self-reflection preferred.

Experiential Learning

The classroom environment in the school practicum played a role as a stage for student-teachers to 'rehearse' their teaching strategies. The student-teachers dared to attempt to implement teaching strategies gained theoretically from teacher training courses. This built up the confidence of the student-teachers by using the experience of putting abstract education theories into practice.

"Before the practicum, in a course, our course-mates shared these ideas in a presentation. During the practicum, at the beginning, these ideas were not very clear. With the support from onsite supervisor, I could clearly discern the lessons in some parts. I think it's a reminder from the onsite supervisor. I believe it's a general implementation for most of the lessons. It'd be a main framework." [Benny, 26:30]

"Practicum provides me with a chance to try to teach. For me, I'm not very comfortable at trying new skills. I'd probably prefer to try it several times." [Alice, 27:30]

"I understand that some courses focus on theories, but in fact, for example, there's a course entitled Teaching and Learning Methods. I remember there was an assessment of micro-teaching allowing us to demonstrate actual lessons. However, due to the pandemic, the assessment was cancelled. I think it allows us to try to teach, in addition, the instructor would give us feedback that might help us to do better in the practicum. Thus, I didn't have the chance to do the micro-teaching. I was confused when I was in the practicum." [Alice, 28:50]

One of the objectives of school practicum is to cultivate student-teachers in implementing their teaching rationale in authentic school contexts. In addition, it showed that the student-teachers were willing to examine and to explore teaching strategies during the practicum, where mentors and supervisors also monitored their 'trials' and provided constructive feedback for them to make improvements.

Respect Students

Student-teachers indicated awareness of their students' learning. Benny showed his care for his students not only during his lessons, but also at other school times. He wanted to get to know more about the students so as to know the learning difficulties of individual students.

"For example, I should spend more time to take care of the students. Maybe in recess, to talk to some of them to understand them. During the lessons, I can also ask them more questions, to let me understand them better. To let them participate." [Benny, 15:50]

"During the middle stage of the practicum, based on the evaluation form given by the university [the practicum requirement], I created an evaluation form for my students to complete to evaluate my teaching. Unfortunately, I didn't include the results in my portfolio submitted to the university. The purpose of this evaluation form is to let me know who am I from the students' point of view. How bad or good I did with the students? I want to know from the students how I can reflect on myself." [Benny, 2:56]

"About half of the class thought I am okay. Maybe the student-teacher is new to students, who has positive images. A few of them had feedback that said I was too bored, not impressive. This negative feedback helped me to identify the weakness in the practicum. [the performance] in practicum." [Benny, 3:16]

In addition, he reflected on his teaching by getting feedback directly from his students. The informal comments from the students changed Benny's consciousness of students' learning pace and understanding.

Active Learning Techniques

Active learning strategies were appreciated by the student-teachers, with some techniques introduced in the teacher training programme prior to the practicum. The student-teachers designed pair or group work for their students to cooperatively complete the tasks assigned to them. They used the power of group work and intended to implement it in their lessons during the practicum.

"Ah...Probably, we learnt some educational theories or skills to promote interactive learning from the university, we anticipated applying it into our lessons in the practicum. However, for example, formatting groups was not easily adopted in the lessons during the time. Although I hope I can apply the skills learnt from university into the lessons in practicum, however, it was not done. It may affect my future work." [Alice, 25:00]

"I'd say I like activity-based learning, pair work. I like my lessons to be 'student-centred' instead of direct instructional...However, in the pandemic, the school doesn't allow students to conduct too much group work. I asked my students to do some pair work, but reminded them not to be physically too closed. It was difficult for me to design such kind of activities, since students may be too closed. In addition, some students spoke unclearly because of the face masks, thus I needed to spend time to clarify it. The extra time for clarification interfered with me completing the tasks designed in the lesson plan." [Alice, 23:20]

"As I said, some group work should not be done in lessons so as to keep social distance. Thus, more direct instruction or individual work could be adopted in the lessons. I couldn't try to adopt group work, which I preferred." [Alice, 39:30]

"Although the school required students to keep social distance, it didn't affect much in the design of the activities. I used alternatives to avoid students being physically too close." [Benny, 39:54]

Unfortunately, the school policy required limiting the extent of group work during the pandemic in order to eliminate contacts among students. This discouraged the student-teachers to carry out interactive activities in the lessons.

Teaching Difficulties in the Pandemic

Apart from adjusting the implementation of activities in the lessons, the classroom management of the student-teachers concerned in particular identifying individuals who were wearing face masks. The student-teachers were allowed to take part into the practicum for a short period of time. They had a one and half month period to understand the school culture, the learning trajectory of the students, teaching practice of the teachers, and other factors interfering their teaching. During the pandemic, everyone was wearing face masks during school time, which restricted the student-teachers ability to identify each student who was to be uniquely catered for. The student-teachers spent more time on recognising their students.

"As all students were required to wear face masks, it was difficult for me to recognise their faces. I could only identify some of them who were more active." [Alice, 31:00]

"All students should wear face masks in classes during the pandemic, thus, teachers observed students with certain difficulty." Researcher: *"Do you think the frequency of teachers to observe students was reduced with students who were wearing face masks?"* *"Yes, teachers observed students not that often."* Researcher: *"Why? Is it interfering in the activities"* *"Students couldn't easily see teachers' facial expressions when we were wearing face masks. Thus, it'd interfere a bit, but not too much."* [Benny, 34:10]

"For example, it's difficult for teachers to identify a student who is distracted with the interference of a face mask. It'd affect a bit." [Benny, 38:00]

Additionally, the student-teachers paid more attention to management of the classes to cater their students' misbehaviors. For example, Benny revealed that he could not determine who gave unpleasant voice when face masks were worn.

"Less homework could be assigned. Thus, the content of the examinations should be adjusted." [Benny, 50:00]

"During the class suspension, teachers conducted online lessons. I found that some students were doing preparation before the online lessons. I believe more time spent on preparation could definitely help the students to learn certain knowledge. However, for some students, they didn't show that they worked on the online homework. It'd affect their learning process when the classes have been resumed." [Benny, 42:50]

Beyond the problems raised by wearing face masks in classrooms, the assessment was affected in the pandemic with the student-teachers having to adjust the contents to be assessed. During the school suspension period, an online teaching mode was adopted, the sudden changing affecting the effectiveness of the learning mode. The student-teachers spent time assisting the students to recap contents to the extent that the scheduled classes were being modified.

Supervision Through Distance Learning

School practicum is conceived as an internship experience for student-teachers to act as school teachers and, at the same time, learn from their mentors and supervisors to enrich their teaching skills through actual teaching and learning

experience. University supervisors were expected to visit the student-teachers and observe their lessons with constructive suggestions after each observation. During the pandemic, the three periods of observation were completed digitally. The student-teachers video-recorded the lessons as outsiders (i.e., the university supervisors) were not allow to enter the schools for health protection of the students. The videos of the lessons were sent to the university supervisors for evaluation. Feedback from the supervisors was gathered by emails, phone calls or virtual meetings.

"For the communication between myself and the university supervisor, we were communicating through emails. I received his feedback in written form. I think it's useful for me. For example, the first lesson plan I did was not perfect, and with his comments I knew which particular parts I should improve. The ways he suggested, to me, were more suitable for the children. I modified the plan and implemented the lesson according to his advice, so that I didn't waste my time." [Alice, 11:30]

"Let say, when I need to explain certain ideas in a lesson, I wished that the university supervisor could tell me which parts I could improve in order to explain the ideas in a clear way." [Alice, 14:20]

"Since he [university supervisor] didn't come to my lessons in person, he may miss some parts, having room for me to improve. He couldn't give me corresponding advice accordingly.... Probably, in my first lesson, I thought I did not very good, however, the university supervisor told me I achieved his expectation. However, when I think deeper, did I really achieve the requirements? I doubt myself. Maybe I just did in that particular observation, but not usually in other lessons." [Alice, 13:30]

"I think the main reason is because the university supervisor did not physically come to my school, my lessons, to observe. I do think looking at the video-recorded lessons and actual observations in the lessons are different. When you are present in the classroom, you may see some alternatives from a different angle. For example, there is a student who needed to be taken care of, however, the video doesn't capture this. As a teacher, I may need to take care of every student, however, the university supervisor may not see it from the video." [Alice, 15:30]

Alice reported that the feedback from her university supervisor was appreciated, in particular, advice conveyed through emails. However, the university supervisors could have blind spots, meaning that some concrete issues may not be discovered as they were absent in the classroom videos. Some critical factors, for example, the misbehavior of some students, in the lessons were not captured in the videos. This interfered with the evaluation of the student-teachers' teaching performance in the practicum, as well as the fairness of assessment for their teaching and learning.

DISCUSSION

This study adopted Dennick's (2012) ideas to frame the analysis of the data. It showed that both student-teachers' teaching and their learning as novice teachers were matched with critical concerns during the practicum. The findings of the study depicted the concrete experience of the student-teachers with respect to aids for reflection, relationships with mentors and supervisors and experiential learning, as well as the challenges faced in the pandemic.

Mentors rated student-teachers' record-keeping skills at a low level (Wasim, et al.,2012). The study showed the student-teachers did not utilise aids, for example, logbooks, to record their teaching and learning experience in the practicum. Although the portfolio template assisted students to holistically gather important information in various aspects, student-teachers completed the portfolios as a kind of summative assessment. It is recommended that simultaneous recording and reflecting on teaching process could continuously help student-teachers in the specific issues raised and reflected on by themselves. This not only eliminates the risk that student-teachers forget the issues,

but also provides evidence for student-teachers to reflect on and to discuss with their mentors and/or supervisors. Therefore, the components of portfolios can be modified by enriching a continual recording feature for student-teachers to systemically record meaningful data throughout school practicum.

Liu (2014) found that mentors overlooked skills for giving emotional support to student-teachers. The student-teachers in the study inclined the mentors to respect student-teachers' rationale. Research also emphasises that mentors are responsible for developing student-teachers' professional knowledge and transforming existing teaching practices (Crasborn, et al., 2010). However, providing room for students-teachers to plan and to reflect on their teaching based on their own teaching models was highlighted. Dennick (2012) advocated student-teachers respect their students' originality, while on the other side, mentors help student-teachers to develop teaching skills corresponding to their own academic background and rationale.

School practicum is considered to be the most valuable component of teacher training programme (Tuli, & File, 2009). It is an authentic environment for student-teachers to teach and to learn by the experience, as a kind of experiential learning, and for converting theories into plans which can be implemented and 'tested'. Therefore, 'authenticity' of teaching and learning experience was regarded as the concrete settings of the school contexts, however, the student-teachers did not regard themselves as 'real' school teachers at this moment, but as 'students' who examined their teaching skills with self-tolerance of mistakes emerging in the lessons. Additionally, active learning, for example, group work, was not encouraged during the pandemic. That the student-teachers had no opportunity to implement interactive activities in the lessons due to social distancing policy raised in the practicum period. Furthermore, it was a critical consideration for the lessons to be conducted in distance learning that collaborative work should be redefined.

In response to the second research question regarding the difficulties faced by the student-teachers during the school practicum in the pandemic, limitations in designing and implementing interactive activities with the students was discussed in previous sections. The means of communication between the student-teachers and the university supervisors were also restricted to virtual forms. Student-teachers and supervisors differed from each other in certain aspects at a statistically significant level (Al-Mekhlafi, & Naji, 2013). The absence of university supervisors in persons widened the degree of difference as the tool for observation created blind spots, reducing validity of the evaluation made by the supervisors. Enhancement of technology, for example, increasing number of cameras capturing classroom activities from different angels, is recommended.

CONCLUSION

School practicum conducted in complex schools, involving internal stakeholders and external professionals, conceives a variating environment for student-teachers in which to focally experience authentic teaching and learning process. In addition to the situation under the COVID-19 pandemic, student-teachers, mentors and supervisors face greater challenges than before. To respond to these challenges, the roles of mentors are essential to personalise an individual mentoring plan for each student-teacher placed in the distinctive situation. Lesson observation means and ways of effective communication given by university supervisors are critical to providing adequate and constructive feedback for student-teachers. Last but not least, social distancing policies and guidelines for schools rapidly changed in the pandemic, and student-teachers as future teachers should be prepared for adopting various techniques and models learnt in and out of teacher training programmes.

Acknowledgments

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