Using reflective journals for analysing pre-service, early childhood teachers' perceptions of practicum experiences

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This paper reports on the findings of a qualitative study conducted to explore the effects of reflective journal keeping by 30 female pre-service teachers studying at a university in the United Arab Emirates. At the onset of the study, the participants were trained on the principles of reflective journal writing and were asked to write in their journals during and after the completion of their weekly field experience over a period of ten weeks. Through content analysis, the qualitative data collected were analysed and four salient themes emerged from the data, i.e., "teaching using technology", "constructive learning", "experiential learning and play", and "class management". The data indicate that the teacher-trainees benefited greatly from writing reflectively as an important exercise that can help them develop professionally and ethically in their careers and aid their students to develop a good understanding of the subject(s) taught. The researchers believe reflective journal writing provides both the pre-service and in-service teachers with unique opportunities to examine and improve their teaching and their students' learning experiences. The researchers likewise believe in order to achieve optimal professional and practical results, teachers should be effectively trained by experienced and skilled educators on to how to write in their journals.

Introduction

Recent educational and pedagogical reforms increasingly emphasise the need for reflective inquiry in professional education. Lyons (2010, p. 94) stated that

> ... the ideal of professional education shifts focus from knowledge alone to the way one thinks and acts, including engaging in reflective thinking processes for professional practice, and learning and developing necessary character traits.

Similarly, critical thinking could be considered as one of the main goals of university and college education. Doubtless, guided reflective practice can help pre-service teachers develop an awareness of their own training and abilities to function more effectively. In the United States of America, in the last couple of decades, many schools and boards have considered reflection and reflective practice as a standard that both teachers and students must strive for (Rodgers, 2020).

Current educational research indicates that reflective practice has progressively become a fundamental part of teacher education, yet the boundaries of the practice are very broad and challenging to define and to teach. Hence, scrutinising the numerous aspects of reflective practice in relation to teaching makes it more tangible and manageable for pre-service teachers who are learning to reflect on their own practice. Dewey (1993, p. 20) defined reflective thinking as "a judgment suspended during further inquiry; and suspense is likely to be somewhat painful." Thus, reflection is a recursive and never-ending cycle of teaching and learning that is carried out in a pedagogical and professional context in such

a way that teachers can establish and clarify cognitive connections between teaching and possible teaching and learning outcomes, using knowledge, personal experience, and active experimentation instead of solving the situation in isolation. Hence, they apply long-term comprehensive solutions that are informed by teaching that is reflectively observed, scrutinised and evaluated (Larrivee, 2006). Consequently, it can be argued that it is both highly relevant and particularly practical for teachers to become reflective practitioners, in order to be able to make connections between their self-observed classroom situated experiences and reflections and to implement innovative solutions for these situations (Pihlaja & Holst, 2013). Through adopting such a reflective approach, without a doubt, teachers will help to more effectively facilitate student learning and decision-making processes in their classrooms (Ostorga & Estrada, 2009).

A large number of research studies have explored and highlighted the effectiveness of reflective teaching in shaping professional development and improvement for pre-service and in-service teachers. It has also been found that reflective teaching links theory with practice in a practical and practicable manner (Mathew, Mathew & Peechattu, 2017; Al-Ahdal & Al-Awaid, 2014).

The aim of this paper is to analyse pre-service teachers' reflective journals over a period of ten weeks to understand their field experience. The paper sets out to answer the following questions:

1. What types of reflection are in the pre-service teachers' writing?
2. What are pre-service teachers' perceptions regarding their 10 weeks of field experience placement?

Literature review: Reflection and reflective journals

What is reflection?

The term reflection to some "is a well-defined and crafted practice that carries very specific meanings and actions" (Loughran, 2002, p.33). Reflection according to Dewey (1933) is mulling deeply over a subject and giving it ample consideration. In this way, individuals are empowered to behave or react in a cautiously purposeful manner. Reflection requires dynamic, diligent, careful consideration. Reflective practice should be both implicitly and explicitly embedded in the teacher education programs and as "educating the student teacher about the theory underpinning practice, the policies that inform practice and the practices themselves whilst arming them with the ability to critique all three and to improve their practice. It is educating the student teachers to be both reflective and reflexive and to know there are alternatives to what is prescribed by the state" (Meierdirk, 2016, p.376). Farrell (2019) argued that reflective practice in teacher preparation is evidence-based and involves deep consideration. He encouraged teachers to make data-driven informed decisions about their teaching and not be swept with impulse or routine. In other words, an effective teacher is capable of thinking the problem out and making decisions accordingly through reflection.

Reflection-in-action vs. reflection-on-action

Reflective practice can be considered as a multifaceted process. Schön (1991) developed three stages in this process: reflection-in-action, which is one's conscious reflection at the moment of both the situation and the reaction; reflection-on-action, which usually occurs after the situation has happened and requires critical analysis; and reflection-for-action, which is the thinking before the action itself. In more recent research, Moghaddam, Davoudi Adel & Amirian (2020) conducted a qualitative research study on reflective practice of pre-service teachers and found that a substantially larger number of the participants engaged in reflection-on-action and reflection-for-action, more than reflection-in-action. This seems to be congruent with the fact that these two are more practical, as the literature suggests.

Reflective journals

As for reflective journals, a unified definition of this practice is generally not agreed upon among theorists and scholars. However, many of them are practically in agreement in referring to this technique as learning logs, diaries, descriptive personal narratives, or dialogue journals. In fact, all of these indicate that reflective journals promote self-assessment and analytical perspectives into a teacher's methods and actions allowing the pattern of teaching practices to become apparent and open for critical inspection and adjustment (Dervent, 2015). Similarly, the results of more recent similar studies have revealed that journal writing serves as a useful tool for self-evaluation, thus leading to successful professional development (Sahin, Sen & Dincer, 2019).

Characteristics of reflective teaching

Many researchers have noted that when teachers are able to combine theory and practice reflectively, students benefit greatly as their achievements are positively affected (Boyd, Boll, Brawner & Villaume, 1998; Ostorga & Estrada, 2009). Farrell (2015) highlighted in his study that the increased level of awareness of one's teaching approach provides motivation for further exploration in both pre-service and in-service teachers. Hence, their first and most important characteristic of reflective teaching is that it could be an effective tool that enables teachers to collect data about their teaching, examine the underlying assumptions and beliefs, and visualise the inherent theories in their behavior and their teaching practices. As a result, teachers can subsequently apply the information gathered to formulate professional views about teaching, while bridging theory with practice.

Pre-service teachers' experiences of writing reflective journals

Studies on pre-service teachers' experiences with reflective journal writing show that while the majority of participants provide positive feedback on their experiences with reflections, their understanding of the purpose of reflective practice appears to remain limited (Roberts, 2016). Pre-service teachers seem to be in need of a structured approach to reflective writing. This is because instead of being concerned with the form of the

reflection, they need to narrow their focus onto teaching objectives, applicability of theory into practice, identifying problems and possible solutions, improving self as a teacher, and understanding the teaching and learning process better. Appreciating the importance and value of reflective journals and engaging in reflective writing can enhance pre-service teachers' critical thinking skills and help them shape their careers (Dumlao & Pinatacan, 2019).

Research on the use of reflective journals

Although reflective writing has become a major tool for active engagement in many courses, especially in teacher education programs, only a small number of research studies has been conducted on reflective journals and their impact on learning. Roberts (2016) commented that using reflective practice as a form of assessment may be detrimental to the core purpose of journal writing; i.e., developing a personal growth rather than writing the "wrong thing". It is important to view reflections as a continuous routine throughout the career of a teacher and not just a short-term practice during preparatory courses. Kumari and Naik (2016) also advocated that using reflective journals throughout pre-service teacher education does have a great value in initiating professional teachers and equipping them with tools to form a practical approach to self-evaluation, thus allowing growth. Teaching is a private endeavour and research suggests that reflection by pre-service teachers opens the door of the critical analysis realm and allows for independent insightful learning. A study conducted by Moussa-Inaty (2015) in the UAE, showed that most participants' reflective writing skills improved after using guiding questions.

Methodology

Context

The study was conducted at the College of Education in one of the three federal universities in the UAE. The Early Childhood Education Teacher Preparation Program at the college requires students to undertake 4 field experience placements throughout their 8-semester course of study. Pre-service teachers enrolled in the program complete Practicum I, in semester 5, which focuses on observations and reflection. Practicum II is completed in semester 6 and emphasises instructional strategies, mini-teaching, and reflection. Practicum III, the context for the current study, takes place in semester 7 during which students spend 10 weeks in school and focus on lesson planning, whole class teaching, and reflection. The final placement is the Internship, in semester 8, involving 15 weeks of full school teaching experience as well as an action research component. While most Emiratis opt to teach in government schools, the teacher candidates are placed in both public and private schools throughout their course of study, to experience both settings. Their placement is in early childhood where they train as homeroom teachers. They are expected to teach basic English, Arabic, maths and science, all at elementary levels, mainly focusing on familiarisation and recognition under the guidance of their mentor teachers.

Bennett (2009, p. 9) stated that "KHDA has adopted the 0-6 age group as the definition of the early childhood stage in Dubai." In the UAE, early childhood education (ECE) comprises nurseries (for infants and toddlers) and kindergartens (for children from 3-6 years) (Dillon, 2019; Bennett, 2009). Most nurseries are independent facilities while many kindergartens are blended into primary schools (Bennett, 2009). Nurseries and kindergartens are co-educational, and the uptake is high. Pre-service teachers who provided reflections in this study were teaching in kindergarten, with an average class size of 20 children. Pre-service teachers worked collaboratively with their mentor teachers and since they were in Practicum III, they didn't assume full responsibilities for classes.

Research design

The study followed a qualitative approach within an interpretivist paradigm. A qualitative approach was selected as it allowed researchers to collect rich textual data (Creswell & Creswell, 2018). An interpretivist paradigm was selected as it is compatible with a qualitative approach (Leedy & Ormrod, 2015) and the combination of the two allows the participants to reflect on their experiences more analytically and effectively. Lapan, Quartaroli and Riemer (2012) postulated that all qualitative research has an interpretive perspective which focuses on uncovering participants' experiences and perceptions about a phenomenon. The study was done as an exploratory case study of a university in the UAE. A case study was selected as it enabled researchers to do an in-depth investigation (Yin 2018; Cohen, Manion & Morrison, 2017) of pre-service teachers' perceptions of their field experience.

The procedure centered upon purposive sampling, which is characterised by deliberate targeting of information-rich participants, and it was used to select 30 pre-service teachers who were doing their Practicum III in different schools.

Participants

The participants comprised 30 female Emirati, Arabic-speaking university students. All were enrolled in the Early Childhood Education Program in the College of Education at a public university in the UAE and were in their third year of teacher preparation. Their ages ranged between 18 and 20. They had all completed two field experience placements and were in their Practicum III course at the time of the current study.

As part of their teacher preparation program, in Practicum III they were required to spend 10 weeks at an elementary school where they were each paired with a mentor (classroom teacher) and had to complete reflective journals as part of their teaching practice. These journals served as the content for the research.

Data collection

Data were collected using guided reflective journals. Each participant was required to complete one reflective journal entry in *MS Word* format at the end of each field experience week over a period of 10 weeks. Journals were submitted into the *Blackboard*

learning management system digitally and downloaded weekly by the researchers and kept in a confidential digital folder until the end of the semester. Once a journal was submitted, participants could not go back and make any edits to it; however, they were able to indicate any changes they wanted in the following journal as an extra notation. None of the journals were read until the field experience had ended. The collected reflective journals had no bearings of any kind on the participants' course grades for Practicum III.

The research was conducted fully in English as it is the official language of instruction at the university for all courses except Arabic language courses and Islamic Studies. As for the researchers, only one of them is a bilingual Arabic/English speaker.

Full ethical clearance was obtained from the university's ethics committee prior to the beginning of the semester. The purpose of the study was explained to the participants, and they were informed that their participation was purely voluntary. Consent forms were signed and participants had freedom to withdraw from the study at any point.

Data analysis

Data were analysed using content analysis. Cohen et al. (2017) argued that content analysis is suitable for analysing qualitative textual data. The researchers read through the data, categorised it into segments, developed codes, and extracted themes. Each of the themes was discussed in depth. To maintain privacy of the participants, all identifiables were removed and traceable participant information was anonymised and coded.

Results

This section presents findings which are grouped according to four main themes that emerged in the process of data analysis. The themes are *teaching using technology*; *constructive learning*; *experiential learning and play*; and *class management.* The themes are elaborated, and students' voices are quoted to illustrate the reflections.

Teaching using technology

All pre-service teachers reiterated the use of technology in schools where they were doing their field experience. Technology was mainly used as a tool that helps to facilitate engagement in children's learning. In one school where *Class Dojo* application was used, a participant maintained that the application is used to "maintain student's engagement inside and outside the class and make children organised and committed." Pre-service teachers reflected on the use of different technologies as they felt they are essential in early childhood education (ECE). This was supported by Participant #10 who said "I feel that reinforcing student's learning by using technology is very essential because there are many beneficial games and websites that can make their learning easy." Similarly, another participant applauded the use of technology in ECE saying, "In my opinion, using technology in lessons has an effective advantage that can help the students to get an advanced process of learning which is making the learning more understandable and closer to reality." The use of technology is ideal for young children as they enjoy

completing their educational tasks in a fun-filled learning environment, as articulated by Participant #20:

> The teacher told them [children in class] that he had created *Kahoot* for them in the beginning of the class. Students could not control themselves [because of excitement]. Even when the teacher was still talking and explaining, they were shouting 'let's start *Kahoot*!', they did not give the teacher the chance to talk! When the teacher started *Kahoot*, they were so excited. They moved from their places and started jumping and shouting.

Similarly, Participant #2 used *Kahoot* and reported the same issue about how students became exceedingly excited to learn:

> I have used *Kahoot*. I was really afraid to use it because students get so excited and shout when they play it, but I did not have another choice. When I applied it, the students were so excited and shouting. I could not control that. I thought about telling them that since they make too much noise when using *Kahoot*, I should not use it again. But, I chose not to tell them that since it was too direct.

Pre-service teachers were very observant on the use of technology as they all reflected on it in their journals. They reflected on the way teachers were using technology and how it motivated children to complete the planned activities. Participant #5 said:

> The teacher was applying as many learning technologies in the class as she can. For example, an educational song about 3D shapes. In addition, she was using the smartboard to display activities about phonics or other English lessons. By using the smartboard, students were able to participate and come to the whiteboard to answer the questions by typing on it.

Technology was used as a main tool that helps enhance children's learning experiences. In the first weeks of field experience, pre-service teachers observed their mentor teachers using technology to facilitate their teaching. They learnt how to use different applications and later in their field experience had opportunities to teach using technologies used in schools they were. This was confirmed by Participant #16 who stated: "I prepared my first flip charts using the *Active Primary* application and set up a *ClassDojo* for my class." Participant #25 used technology and reflected on how she plans to use it again in her next class saying:

> I feel that there is one significant area that I would like to use technology in my next teaching. For instance, I could present an introduction song about owls at the beginning of the lesson. In addition, I could present the sound of the owl to the children in order to have knowledge about how the owl sound is like.

As shown in pre-service teachers' reflections, they learnt from their mentor teachers that technology helps improve young children's learning experiences. Likewise, they used technology to make their lessons more interactive, which is an integral part of constructive learning.

Constructive learning

Pre-service teachers have learnt that teaching does not solely entail standing in front of children and lecturing to them. They understood that it is about co-constructing knowledge and solving problems collaboratively with learners. In order to do that, a teacher has to be a guide of children's learning. Participant #17 reflected on what she learnt from her mentor teacher who was using a purely student-centered teaching method where knowledge was constructed by children:

> The teacher gives students a chance to construct their own knowledge on their own. She asks them to do some tasks by themselves such as completing their homework in the class and working with real objects to learn. Actually, the main role of the teacher here is facilitating student's learning by answering their questions only. In fact, implementing that principle can promote a student's critical thinking because they will try to figure out and guess the main ideas of the lesson by themselves.

Similarly, Participant #19 reflected on her role as a facilitator of children's learning saying "my students had an online reading test in the library. I helped students to open the web page and to enter the password. After that, I was just a facilitator." In a different instance, children were taking the lead in co-construction of knowledge and problem solving. This is evidenced by Participant #30 who reflected on an incident where children helped her to solve mathematical problems:

> I confirm today that the teacher role is not always teaching the student, the teacher can learn from the students too. The evidence which I have to confirm this is, in the Math lesson, I was stuck because I did not know the techniques they use to solve Math problems. Then, two of the students in the group helped me to understand those techniques and I complimented them. They were so happy because they helped me.

This incident supports the view that children are not empty vessels waiting to be filled with knowledge. They have some knowledge which can be used by the teacher to make the whole process of teaching and learning easier for all parties. In constructive learning, students and teachers learn from each other. It is both counterfactual and counterproductive to view a teacher as the one who knows everything and does not learn anything from a child. One participant who was not good with maths got assistance from a child while she helped the child remain focused. Participant #3 said:

> The problem with Math is that I'm not really good at it, even with simple problems like addition and multiplications, and I actually hate numbers… I really REALLY hate numbers… Nevertheless, I tried my best to help this student and she mostly was explaining to me rather than me explaining to her. The only thing that I could do with this student was to make her focus, because she lacks focus and forget a lot.

Participants realised that children are likely to learn a lot when the teacher involves them in various activities. This was also confirmed by Participant #27 whose mentor teacher had different activities for children to do in groups:

> The students seemed very interested in learning when the teacher used various activities and strategies in her teaching. For example, in her lesson five, she used different activities for the students. Each group had to do one activity and when the students finished, they moved to another group to do another activity. It was like moving around different stations and children liked that.

Generally, it seems that the pre-service teachers have learnt from their mentor teachers that the best way to teach children in ECE is by involving them throughout. In all the daily reflections written by students, they reiterated the fact that mentor teachers performed activities along with children in class. Even reading stories, where one would think that children will be passively involved as mere listeners, should be done in such an actively engaging way. Participant #8 reflected on what she learnt from her mentor teacher:

> Something that I like from today's English lesson is that the teacher used a unique technique when she was retelling the story. She let the students act the story. First she picked the characters and asked them to act out what was read in the story. I think this is a good technique to use while you are retelling the story. Because when the students act the story, then they will know exactly the beginning, middle, and the end of the story and it is fun to make a retelling story like this.

Without a doubt, when children are involved in class activities and construction of knowledge, they are more likely to learn. Children in ECE prefer experiential learning and playing all the time. This challenges teachers to prepare hands-on activities and make sure that all children experience the learning.

Experiential learning and play

Children in early years learn through hands-on activities where they will be experimenting with things. This is part of experiential learning which pre-service teachers reflected on. Young children enjoy experiential learning when their teacher is involved with them. Participant #6 confirmed this saying: "I was engaged in doing science experiments with them [children] and they were very happy because I was with them doing the experiment." What makes experiential learning outstanding in ECE is the fact that it is hands-on, and it allows children to use their cognitive skills to conduct the experiment. This was also reflected by Participant #11 who said:

> Children did a small experiment using water, cardboard and paper and the teacher told them to spill water on both paper and cardboard to see which one will still be strong. In addition, the teacher asked them to cut the paper by their hand to see which one is hard to cut. In this activity, students were so excited that they cut all of the papers around them, even the worksheet that they were supposed to solve it.

Participant #14 who used experiential learning with children in her class said, "I have attended science class for 30 minutes. They had to do an experiment. My mentor teacher told me to work with a certain group. I helped them to mix the liquids to find out more about their lesson." Pre-service teachers learned the importance of conducting

experiments with children. Some of the experiments were conducted in laboratories as was shared by Participant #22:

> One positive thing that happened today is I was introduced to the STEM lab. STEM lab is a learning lab where teachers and students are engaged in high quality hands-on activities. STEM stands for science, technology, engineering and math. So, today's activity at the STEM lab was, first they have to write a hypothesis about whether the fan will work or not. After that they build their own fan by LEGO. I was so impressed by how the children understood and all of them followed the instructions given and they built their own fans.

Participants learned that experiential learning is essential, and children enjoy it. This was reflected by Participant #24 who said, "I already know that most children like science and doing experiments is their favorite part." All participants reflected on different modalities of experiential learning including teaching using hands-on activities and play.

Play in ECE is part of experiential learning. All pre-service teachers reiterated play as one of the main methods their mentor teachers used in their teaching. The students also used play to enhance children's learning experiences. Participant #7 reflected on a class where she and her mentor teacher engaged children using outdoor play:

> The best thing I enjoyed is the outdoor adventures class. The students in this class went to play and explore outside with sand, water, toys, plants and making balls with corn starch and water. They used their fine motor skills. Moreover, in this class, the student learns how to be good communicators, caring, responsible, teamwork, reflective, creative and explorers. In addition, I learned a game for practising phonics with children, and it was a funny way to learn easily. This game called "tennis by phonics", the teacher and the students pretend that they are playing tennis with sound "ch".

Outdoor activities were not only exciting and educational to the children, but to pre-service teachers as well. This was confirmed by Participant #13 who said:

> The students today went for an outdoor adventure where they got to wear long t-shirts, play in the mud with water and explore the environment. I really liked the outdoor adventure. The students looked like they were having so much fun and they were allowed to get messy.

All participants who had opportunities to go for outdoor adventures attested that they were thrilled by the learning strategy. Even play activities which were done indoors attracted pre-service teachers and enhanced young children's learning. In some instances, young children were asked to role play some characters in the story. This got children excited, focused and at the same time understood the lesson better. Participant #23 confirmed this saying:

> I think that the students found this lesson interesting as they showed enthusiasm throughout the time frame. Also, some students asked if they could re-enact the story as a play. I was taken back for a moment, as I never expected them to enjoy the reading as much as they did. I gave them permission to role-play after we were done with the

lesson. Other students enjoyed watching the play and knew exactly how each scene went as they were paying attention.

Different types of play were used to enhance students' learning experiences. This is inclusive of pretend play, fantasy play and cooperative play. Fantasy play was used when Participant #18 said:

> Grade 3 students and teachers were dressed as paleontologists. Students brought tools that paleontologists could use and they had to explain how paleontologists would use them. After that, students made posters in their groups about their own dinosaurs. After that, we experienced an outdoor activity in which we had to go out of the school to dig into the sand to find hidden pictures of dinosaurs' bones. It was really fun. Later on, we went to the other building to watch a movie related to the topic of dinosaurs.

Also Participant #21 used fantasy play to gain children's attention, she explained: "I have taught the students a read-aloud lesson. I have read [a] very interesting story and used some dramatic acting to grab their attention."

Pre-service teachers were convinced that play is the way to teach children in early years as it helps them develop cognitive, physical and socio-emotional domains. Participant #9 reiterated this saying:

> I was observing the children while they were playing. When I was in the playground area, I saw how students interact with each other and I recognise that children learn when they are playing. Playing is a significant part of children's development and learning. When children are playing, they learn many things. So it is very important to give a child time for playing. Playing enhances children to use their creativity and this happens when children are playing and imagine things. Also, playing allows children to explore the world. So playing improves children's skills by developing their physical, intellectual, emotional and social. Something that I liked when I was observing the child is that when some student was trying to climb the rope but she could not climb because she was short, then she was thinking. After that, she takes the box and stands on it to help her climb. So these kinds of games are very useful, because it improves student's skills and let the students to think critically.

Play is critical in young children's learning as it makes them happy. This was confirmed by a reflection of a participant who said, "I took my children in class for physical education (PE) and noticed how they were excited to play sports, even the girl who cries a lot, she was happy that day." Even young children confessed to pre-service teachers that play related activities are fun and they like them. Participant #1 said:

> As for the second activity, they had playdough, wool, plastic eyes and they had to create their own worm since the worm was the main character in the story. The students' reactions encouraged me to be more creative next time, they were so happy and one of the girls kept repeating "I love this activity." "I love this kind of teaching." That was adorable and made me happy.

Sometimes when teachers teach using play, it will be easy to manage children in class. In other words, play helps with class management as children will be preoccupied with activities all the time.

Classroom management

Pre-service teachers reflected on different classroom management strategies used by their mentor teachers to control children. Participant #29 said that her mentor teacher:

> used fabulous strategies to make her students organised inside the class. I think the teacher was following various interesting methods. Using hands clapping 5 times and saying: hands on top in a loud voice. In fact, that strategy is regarded as one of the most significant methods that every teacher needs to use to keep her students organised and follow directions quickly. Clapping hands and making the students repeat clapping hands after the teacher can make students realise that they have to stop annoying others, saying bad words, not doing the tasks that they have to do.

Similarly, another student reflected on different classroom management strategies used by her mentor teacher, saying, "students get noisy a lot so the teacher uses many classroom management techniques like: changing her voice tone, turning on a weird sound like a buzz from the smart board, clapping, shaking one "maraca" (a percussion instrument)."

Some mentor teachers used the app, *Class Dojo* to help manage students' behaviour. Participant #4 said:

> The teacher uses a system called *Class Dojo*. It is a system where she can give points to students according to their behaviour. For example, if a student sat quietly and listened to the teacher, she adds a dojo point for this student. A student gets a bad dojo point if he/she does not listen to the teacher. Before giving a bad dojo point, a teacher warns the child first. If the bad behaviour continues, a bad dojo point will be awarded. I really think that this app helps a lot in managing the class.

The accumulation of *Class Dojo* points based on children's conduct is a teacher's way of rewarding children for their behaviour. In another school, they centralised the rewarding of children's behaviour by giving them rewards per class and that was done weekly at the assembly. Participant #26 reported this saying:

> I found a very interesting and positive thing that they do in school weekly at the assembly. Every week they reward the best student in class and the best behaviour in English and Arabic class. They gather all students in year one and reward one from each class.

Teachers in different schools used different strategies to gain children's attention and control bad behavior. Pre-service teachers learnt from different strategies used which include differentiating children and focusing on the positives rather than the negatives when managing classes. Participant #15 reflected on her mentor teacher's classroom management strategies saying:

> I realised that there are some effective strategies that she is using to manage student's behaviours. One of these strategies is talking with the student individually if he/she misbehaved. When any students fight or say bad words to each other, the teacher calls them and takes them outside to listen to what happened between them. In fact, the teacher does not focus on the students who misbehaved, she focuses on the other students. Actually, the strategy that the teacher uses is very good because it will let the student who misbehaved know his/her mistake and not repeat it. If the teacher put[s] her concentration on the student who misbehaved, then the discussion will not end, and both of the students will blame each other. Moreover, when a student from the class … [misbehaves] while the teacher is teaching, she stops the lesson and looks at the child and says I do not like this behaviour because it's not good to do it in front of others. Then, the student will realise how his behaviour is not acceptable, so he/she will try to not repeat it next times.

Pre-service teachers learned different strategies of managing classes by observing their mentor teachers and their experience of working with children. Participant #12 said: "I have learned many aspects related to the classroom strategies and if all these strategies and techniques are applied and used in every classroom, then there will be a positive response from the students." Also Participant #28 who learnt from the mentor teacher how to manage students' behaviour said: "One positive thing that happened is that I learned some strategies from my mentor teacher which are how to deal with students who hit other students."

Towards the end of students' field experience, their reflections were becoming more critical. They wrote about things which were happening in schools which they did not feel were appropriate. For example, one pre-service teacher disliked her mentor teacher's way of managing children's behaviour by intimidating them. Participant #15 reflected on the strictness of her mentor teacher who was not allowing children to talk during break time:

> Since day one, I noticed something in the school and tried to ignore it but the thing kept repeating itself. The school has excellent behaviour strategies and great reinforcement strategies, nevertheless children do not really have much freedom! Like for example during break times, they are sometimes not allowed to play outside and are obliged to stay in the classroom; which I totally understand because of the hot weather. However, when they're in class during break time, the teacher expects students to remain quiet and silent, which I cannot really understand! Children need this time to do whatever they want to, like talking, running, and chatting even if they are noisy because it is their right to do so in their break.

Participants were able to learn greatly from their field experience. Those who were at a school where there were fire drills reflected on their experience. Participant #19 saw the drill as a learning opportunity:

> Today the school had a fire drill, so we took the students out of the class and we walked to the playground. I think this is a great chance for me to learn more about my responsibilities in emergency cases as a teacher and I really learned a lot from this experience and how to deal with kids in this situation. For example, one of the students was afraid and my mentor teacher asked me to talk with him and let him calm down. I

think my mentor teacher is trying to provide me chances to learn as much as possible, which I'm glad about.

To sum up, pre-service teachers' reflections show growth in terms of understanding appropriate pedagogical teaching skills and class management. They managed to provide reflections which were not only descriptive, but critical and informative.

Discussion

Reflection-on-action was dominant in this research as pre-service teachers reflected on how they taught and developed an understanding of what real teaching entails. Participants' reflections were centred on teaching using learner-centred methods and application of technology. This forms the technical element which is one of the three levels of reflective practice (Zeichner, 1981). Participants reflected on how they redefined a teacher's role as that of guiding learners and co-constructing knowledge in an interactive environment with children. This is consistent with Vygotsky's (1978) theory of social constructivism which places learners at the centre of learning where they will be interacting with the teacher and other learners. Pre-service teachers were convinced that experiential learning and teaching using play were the best ways to teach young children in ECE. According to the UNICEF, "play is one of the most important ways in which young children gain essential knowledge and skills" (UNICEF, 2018, p. 7). Through play, children develop more complex critical thinking skills and advanced problem-solving strategies which help them become autonomous at an early stage (Parker & Thomsen, 2019).

Technology was used by all participants as a tool for enhancing children's learning experiences in a fun-filled environment. Van Scoter, Ellis and Railsback (2001) contended that technology can be used in ECE to make children's learning practical, interactive, fun and successful. This is because "computers are increasingly a part of preschoolers' lives" (Clements & Sarama, 2002, p. 340) and teachers must use them to enhance children's learning experiences. Mohebi (2018) argued that in the UAE, pre-service teachers are expected to have comprehensive technological pedagogical content knowledge in order to deliver quality content to learners. Similarly, Alsaleh (2019) conceptualised the preparedness of pre-service teachers as having teacher efficacy, good knowledge, and ability to use technology as a pedagogical tool.

The second element of reflective practice (situation and institutional) is evident in this study where a participant reflected on a fire drill which was conducted at her school. As evidenced by the reflection, the student gained knowledge about keeping children safe. Similarly, Zeichner (1981) postulated that in a reflective practice, what takes place at a particular institution is worthy of reflecting on, as people can learn from the experience. Schön (1987) stated that when a teacher reflects on an experience, he/she is likely to use critical thinking skills and learn.

The third reflective practice of moral and ethical issues was evident in this study where participants reflected on some class management strategies used by their mentor teachers.

One participant condemned intimidation as a class management strategy. Another disliked her mentor teacher who was too strict with children by not allowing them to talk during break time. This contradicts Fullan's argument wherein he stated, "scratch a good teacher and you will find a moral purpose" (Fullan 1993, p.1) A good teacher who has moral purpose acts justly with all learners. This is because teaching is a moral profession. In most cases, teachers are role models for learners. That is why they (teachers) have to reflect on their practice and treat children with high levels of integrity. The fact that pre-service teachers managed to single out some moral related issues from mentor teachers shows a high level of critical reflection they were applying in their reflective journals. Zeichner and Liston (1987) characterised a good reflective peace as the one that comprises a teacher's critical reflection of self and the situation around. A teacher will be learning from every reflection (Hoffman-Kipp, Artiles & Lopez-Torres, 2003).

Conclusion

To summarise, this paper explored the importance of reflective practice as an effective approach in improving teaching and learning of teachers. The study revealed that if pre-service teachers are effectively trained in reflective journal writing, they will develop a good knowledge of themselves as educators, of their students, of the learning objectives they have for their students, and of the relevant tasks they design to achieve those goals. The researchers maintain that reflective practice as such helps pre-service teachers to engage in a meaningful dialogue with themselves about what they actually do in the classroom and evaluate the effectiveness of their own teaching. Teachers' regular reflective practice during and after teaching endows them with uniquely relevant insights that can help them improve their teaching methods and techniques.

Such an approach to education is multifaceted and views teaching both as an art and as a craft which ought to be perfected through rigorous training and hard work. As an art, the teacher re-visits and examines her/his teaching to make lessons more age-appropriately presentable and pleasant for the students, and as a craft s/he re-evaluates the (way) goals are set and met. Doubtless, in an ever-changing world, the researchers believe, reflective practice can be a very effective guiding philosophy which helps teachers and students alike in achieving their goals. Therefore, the researchers firmly believe that reflective journal writing should be an integral component of teacher training courses at all educational levels.

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